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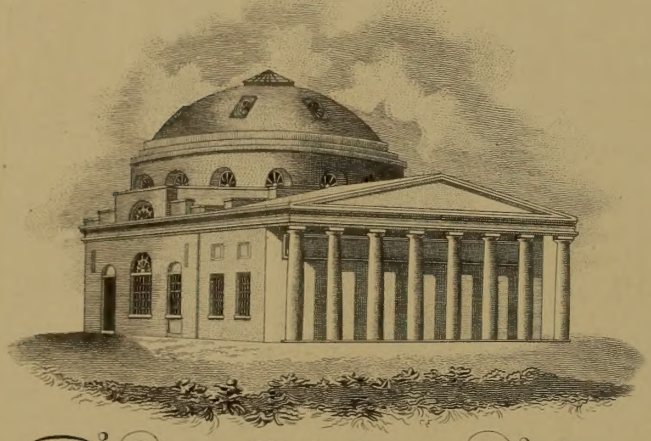

University of Maryland

University of Iowa Libraries

Early Doctor of Medicine and Doctor of Philosophy Dissertations with
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These pamphlets described as *Inaugural Dissertation* or *an Inaugural Essay* were presented to the University of Iowa College for the Degree of Doctor of Medicine and/or Doctor of Philosophy during the years 1855-1897. The individual dissertations were bound together during the 1900s. The original table of contents for the bound volumes was lost or misplaced; pagination, dates and/or years. To achieve these goals, a generic "Recreated Table of Contents" has been inserted at the beginning of each volume.

The people from who contributed and created the table of contents were: Richard J. Bohlen, Historical Librarian for Archives Office; Marie Milagros Flakes, Metadata Management Librarian; Angela Cochrane and Carol Harvey-Henry, Resources Librarians; Derek Bowers, Video Librarian and Megan Wolff, Services Librarian.

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University of Maryland Theses

Early Doctor of Medicine and Doctor of Physic Dissertations with Corrected Tables of Contents

These manuscripts described as either an Inaugural Dissertation or an Inaugural Essay were presented to the University of Maryland for the Degree of Doctor of Medicine and/or Doctor of Physic during the years 1813-1887. The individual dissertations were bound together during the 1940's. The original tables of contents for the bound volumes contained multiple errors in authors' names, titles, and/or years. To address these errors, an additional "Corrected Table of Contents" has been inserted at the beginning of each volume.

The project team who investigated and corrected the tables of contents were Richard J. Behles, Historical Librarian/Preservation Officer; María Milagros Pinkas, Metadata Management Librarian; Angela Cochrane and Carol Harling-Henry, Resources Division; Sarah Hovde, Abra Schnur and Megan Wolff, Services Division.

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(CORRECTED TABLE OF CONTENTS)

UNIVERSITY OF MARYLAND

THESES

1868 (d)

Author	Title
Moorman, J.A.	Cinchona
Carpenter, George H.	The Function of the Digestive Fluids
Eisenhart, William H.	Diphtheria with a Clinical Case of Rheumatism
Summers, James P.	Dysentery
Dausch, Peter	Pulmonary Tuberculosis
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Giddings, William V.	Acute Bronchitis
Price, Joshua T.	Opium
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Bordley, James Jr.	Differential Diagnosis of Typhus and Typhoid Fevers
Thomson, Pembroke A.	Acute Lobar Pneumonitis
Williams, T. Clayton	Use of Alcohol in Phthisis

HSHSL 2012 for the UM Digital Archive. Sources consulted for corrections: Original Dissertation; University of Maryland Medical Faculty, Matriculation List, 1851-1892; Cordell, Eugene F. "University of Maryland, 1807-1907" (New York : The Lewis Publishing Company, 1907), Volume 2.

UNIVERSITY OF MARYLAND

THESES

1868(d)

Moorman, J. A.	Cinchona[1]	28p.
Carpenter, George ~~G.~~ H.	The Function of the Digestive Fluids	20p.
Eisenhart, William ~~Wm.~~ H.	Diphtheria with a Clinic Case of Rheumatism	33p.
Summers, James ~~J.~~ P.	Dysentery[2]	37p.
Dausch, Peter	Pulmonary Tuberculosis	60p.
Kerr, Charles ~~C.~~ S.	Chloroform	23p.
Giddings, William V. ~~W.~~	Acute Bronchitis	20p.
Price, Joshua ~~J.~~ T.	Opium	27p.
Stokes, James ~~J.~~ H.	Epilepsy	34p.
Greenway, Gilbert ~~G.~~ C.	Food	33p.
Bordley, James Jr.	Differential Diagnosis of Typhus and Typhoid Fevers	35p.
Thomson, Pembroke ~~P.~~ A.	Acute Lobar Pneumonitis	18p.
Williams, T. Clayton ~~C.~~	Use of Alcohol in Phthisis	31p.

(1) Calligraphy on all ten section headings
(2) Partially faded

AN

Inaugural Dissertation

ON

[illegible]

Submitted to the Examination

OF THE

Provost, Regents and Faculty

OF

PHYSIC,

OF THE

UNIVERSITY OF MARYLAND,

FOR THE DEGREE OF

DOCTOR OF MEDICINE,

By

S. A. Monroe

Of

Virginia

Session of [illegible] 18[illegible]

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An
Inaugural Essay
On
Cinchona
Submitted to the examination
of the
Provost Regents & Faculty of Physic
of the
University of Maryland
For the
Degree of Doctor of Medicine
By
J. H. Hoorman
of
Virginia
February 1858

With due deference to the several branches of my profession engaged at present with subjects that equally demand my attention and study, I have given preference to the Materia Medica, from which I have selected Cinchona; not because I feel that it is in my power to offer in written or oral language, words sufficiently expressive of its great value, but because in writing upon this subject, I feel and know that its virtues are positive and certain and will therefore bear a repetition with good or impunity than most others.

The reputation which it acquired at an early age as an antiperiodic and the dawning of an invaluable knowledge. As the

prejudice to its use, which for so long a time masked, as it were, its real value was thrown aside by degrees, Science was allowed access to the grand and prolific field which it offered; nor have its researches been in vain; but she has bestowed on man possession of an Antiperiodic as well as Tonic, which now stands upon the foremost rank of Therapeutics, without a rival, and defying competition, bound to flourish so long as the great Orb both expands her sails, or nature produces fleecy fleece, or Some spreads its white array on human health.

Amongst most other medicines the action of which have been shown, Dr. Pepper undertook experiments upon the effect of medicine

maturation and decline Cinchona with her Alkaloids rises exterior, and with those world to endorse her, exhaustion an unmistakable tone, efficacy is mine.

For many years it was not known that but one species existed; but discovery after discovery continued to be made until at length the bitter-barked Cinchonas were found to be many, each constituting a distinct genus, an all associated in the family Cinchonaceae.

Cinchona is so called because, the barks of the Cinchona was the first introduced to Europe. This was in 1638. Peruvian Bark because brought from Peru; Jesuits bark because first in possession of the Jesuits;

and it was they who first called the attention of the profession to its use. It was sold by them for its weight in silver, hence Kina because, it is a king of barks or bark of barks.

The Cinchona tree grows for 600 miles along the Andes mountains at an elevation of 900 feet above the level of the sea. The width of country in which it stands is from 40 to 50 miles. It is noticed that the best growth is found in the most dry and The trees grow from 10 to 15 inches in diameter, and it is only those that are Cinchona that are capable of curing the organism. It is important that it should be gathered in dry weather, hence mois-

time not only destroys the color but the active principles are likewise lost. The bark is gathered by Indians who cut the trees down and with a knife made for the purpose the bark is peeled off, and dried in the sun; that from the trunk prevented from coiling by weights but that from the twigs is coiled or quilled by the heat of the sun. The size of the quill depends upon the size of twig, the age of the tree and the kind of tree. After it is dried it is then taken to stone houses in the neighborhood which are built for the purpose.

Peruvian bark was formerly shipped to England and then to America. It was shipped in hides lined with cloth. The fine

ciple ports in Chili, are Arica, Callao and Payta

The fractures of the bark are of three kinds, viz. fibrous, smooth and resinous. If the fracture is smooth it contains but little Quinia; but if the fibres are spindle shaped it is worth purchasing. The taste is extremely bitter, and some of the specimens are astringent. The active principles may be extracted by boiling water or alcohol in an inferior solvent. Alcohol & dilute acids are better. The active principles are all alkaloids and the most important of them are Quinia and Cinchonia. They exist in the bark in combination with Lime and

There are three kinds of bark now officinal

in our Pharmacopoeia, viz. Cinchona Pallida, Cinchona Flava, and Cinchona Rubra.

Pale Bark.

The Pale Bark is derived from Cinchona Condaminea. This variety always comes in quills and the fracture is smooth instead of fibrous, and taste somewhat astringent, showing that that it contains Tannic acid. This bark is apt to coil in double quills, is covered with lichens or hair which gives it a grayish dun color, but different specimens are different colors, the latter being the most inferior. The discriminating between the sorts is very difficult but is the only reliable means of dis

-tinguishing the different varieties. The form of lichens also varies with the different varieties. The Pale barks are said to be chemically characterized by containing a large amount of Cinchonia and Quinidia than of Quinia. Another rule for distinguishing is that the infusion does not give a precipitate with a solution of sulphate of of soda. The best forms of Pale Bark are called Loxa Bark.

The important points to remember about the Pale Bark are that it always comes in quills, contains much Cinchonia, and is astringent. There is probably Quinia in this as well as in the other varieties of Bark.

Cinchona Flava

This is the bark of Cinchona Calisaya. It comes in quills or flat pieces; and the quills are larger than those of the Pale Bark. They break with a fibrous fracture and the pricking with them is very irritating. The flat pieces have the epidermis detached whilst that of the quills remains on, and is very rough. It is also characterized by being much more bitter and having less tannic acid than the pale. It is always known as Calisaya Bark and is found in the south. It is this kind that is richest in Quinia and is the species from which it is mostly obtained

Red Bark

This variety is known in commerce as Cinchona Succirubra. It mostly comes in flat pieces but sometimes in quills which are generally doubled. The pieces are not so flat as the yellow bark. Those parts which have not been exposed to the air are of a dark orange color.

The bark of the Red is bitter and astringent, and chemically characterized by containing 2 percent of Quina, and not so much Cinchonia. The chemical constituents are found in the form of tannate of Quinia. The tannic acid that is found is called Cincho-tannic acid. The red

benchonic acid found in red bark is thought to be tannic acid that has undergone oxidation.

Sulphate of Qwinia or Quinine

This the sovereign remedy is prepared from the Yellow Bark. The bark is first boiled in water and hydrochloric acid; to this Lime is added which forms the muriate of lime, which remains in solution and the Quinia is precipitated. The precipitate is well washed with boiling alcohol filtered dried and digested in alcohol. The alcohol is now evaporated off. The residue is then dissolved in hot water, acidulated with sulphuric acid and crystals of sul-

phate of Quinia are deposited, when the solution cools. The crystals are white and feathery, slightly soluble in water, and very soluble in Alcohol. Sulphate of Quinia was discovered first years ago. It has an intensely bitter taste, soluble in 740 parts of cold, and rather more soluble in hot water (about 30 parts). It is also soluble in 60 parts of Ether

Tests.

The most characteristic tests are the following. 1st Add ammonia to a small amount of Sulphate of Quinia dissolved in distilled water; and the result is an Emerald green. 2nd With Iodine one drop of Tincture have a cherry red. 3rd The green salt last

gives a pale blue color when examined by polarized light. 4th. If contaminated with starch touch it with Iodine and it will give a blue color. 5th. If contaminated with minerals they will not dissolve in Alcohol. 6th. If contaminated with Sulphate of Cinchonia it will not dissolve in Ether.

Cinchonia.

This is a white crystallizable substance but not so bitter as Quinia, fusible, soluble in water, (requiring 2500 parts to dissolve). The crystals are not efflorescent like those of Quinia, but hard and shiny. The medicinal properties are the same as Quinia and must be given in larger doses.

Quinoidine.

This preparation is not much used now. It is a noncrystallizable amorphous Quinia. It is only about half as strong as the Sulphate of Quinia and is consequently much cheaper.

There are several other preparations of Cinchona Bark, but not much used and therefore not necessary to mention them.

Physiological effects of Bark.

Quinine is found all doubt of being absorbed and circulated by the Blood for it has been found in both the Blood and

Urine, when taken in large quantities. It is also thought to a rapidity, that the disease for which it is used, has to result in the Blood; and that the Alkaloids act through the Blood on a strictly restorative principle. It is also thought to come to exercise its curative effects, by acting upon the nervous system in such a manner as to produce a healthy growth when the Remedy is administered, thus enforcing the

Dr. Shew Thinks that it acts, by restoring to the Blood some principle which it was deficient in. It is taken up by the Blood & remaining in the system the other to be eliminated by the kidneys. That eliminated by the Urinary [illegible]

in the form of Kiffsuric acid; the Kina acid consists the kino acid and Kiffsuric.

The question as to whether Quinine exists naturally in the system or not Dr. Bence Jones has proven in the affirmative. That Urin is a substance identicle with Quinia or holding the closest chemical relations thereto, is now the general opinion of physiologists, and that it exists in the fluids of the body. He made his experiments on a Fever pt. to which Kina had been given and compared them with others made upon one to which no Quinine had been given, and results similar results were had. He tried the chemical test with Iodine and the same conclusions were arrived at. [illegible]

ances contained Quinine without the injurious effects attendant thereon. The indications are time & Quinine. The chemical constituents are C.H.N.O.

The prophylactic [illegible] of Quinine are fact as invaluable as the curative if given in time. If it be given in small doses it is endowed with tonic properties. The extreme bitterness coming in contact with the coats of the stomach acts as an irritant and thus stimulates the stomach to greater secretions of gastric juice which [illegible] digestion. It is this action that [illegible] be in stance [illegible]

When given in large doses the effect on the price is different: It [illegible]

larger the dose the greater the impression. It depends the kind of disease, the violence of the fever. Not less than 12 grs will suffice in this case and sometimes much more is necessary. These large doses often produce gastric irritation.

One of the first symptoms of the effects of Quinine on the system is ringing in the Ears, which increases with the dose and sometimes permanent deafness is the result. Delirium, loss of sight and absolute Coma may result, followed by death in 36 or 48 hours, with a Flushed or Head. Wakefulness and convulsions are also symptoms of poisoning by Quinine, and Febrine Diuretics.

The medicines varied to produce the effect. The most [illegible] symptoms are a [illegible] in hearing with ears, headache and deafness. Headache is almost the natural [illegible] effect of the administration of Quinine. It sometimes causes a burning in the urethra, [illegible] and [illegible]. When applied to a denuded surface it causes a burning stinging pain in [illegible]. It sometimes [illegible] a [illegible] ing or tingling sensation on the surface when administered internally. This is probably caused by the [illegible] of it by the endosmosis of the skin

Uses.

It is in those diseases characterized by periodicity that Quinine is most valued as a remedy. It is questioned by some whether it is proper to administer Quinine until the digestive organs are prepared for it by the use of Cathartics and Emetics; but experience has shown that these are not necessary precautions.

If constipation be very obstinate it will probably not be the most effectual in this case it will be advisable to give the Quinine by a Cathartic.

There are some conditions which sometimes cause it to reflect on the kidneys,

of its use. One effect is inflammation of the brain and its membranes. In this case it is best to subdue the inflammation before administering the Quinine, because it will be likely to aggravate those symptoms. But if the attack be a very pernicious one give the Quinine and if the symptoms are aggravated you may be able to overcome them. Inflammation of the mucous membrane of the Stomach is another effect. In this case it is best to administer the Homœopathic method.

As to the time for administering Quinine all agree that its efficacy is most marked if given shortly

after the first paroxysm; but there is a discrepancy as to the size of the dose and the repetition of it. Dr Chew recommends it in larger and less frequent doses; say 10 grs at the outset followed by 5. While many others prefer it in smaller doses and oftener repeated.

It should be given at least 3 hours before the expected paroxysm and it is further [illegible] 3 hours on the [illegible].

The combination of Quinine with [illegible] makes it infinitely better. Dose [illegible] of Mist [illegible] effect. From 10 to 20 [illegible] is generally sufficient to check [illegible] and

from 2 to 8 grs in the milder cases. If given just before expected to be attacked to appear at it; but in malignant forms it must be given at once, whatever be the period; repeating if necessary and in rather larger doses than common; but it is rarely needed to give it in larger doses than 20 grs at a time.

Besides the periodic diseases there are many others in which it has been used with great benefit; some of which are Neuralgia, Epilepsy, Tetanus and Enteralgia, when caused by metallic poisons, Spasmodic Stricture of the Urethra, Typhus fever, Dyspepsia and many others.

Forms for using Quinine.

First the powdered form of the bark itself but this is more used formerly than at present. There are some cases in which it acts more efficiently than the solid extract; Third, fluid extract; fourth Tinctures, both simple and compound; fifth, Sulphate of Quinine; sixth, mixtures of red and yellow bark; and seventh, Citrate of Iron and Quinia. When the bark is given the Red or yellow should be preferred to the pale because the tonic properties are greater. Dose of the powder Bark is from ℥ss to ℥iv, and as a simple tonic from 15 to 30 grs. for dose.

Coffee or wine is a good vehicle. As a general tonic bark will exercise a better effect than Quinia itself. It is often prescribed with the Precipitated Carbonate of Iron in cases of Anaemia. Dose of the Solid extract is 20 grs. Fluid extract ℥ss 20. Decoction. Boil ℥j in Oj of water for 15 minutes; strain and the dose is from ℥j ℥ij. This form is used in Diphtheria. Infusion prepared by percolation. Tinct. Simple not used now. Compound Tinct. commonly known as Cathars Tinct. is prepared from Red bark, Orange peel and Serpentaria. Dose from ℥ss ℥j ter die. This is the best form to use in Dyspepsia. Bal pill is also a common form

for using especially when there is Idiosyncracies. 15 gr. aromatic sulphuric acid and 20 gr. of Quinine made into from 5 to 20 pills, make the best pills.

Channels by which administered

There are three different, by which it may be administered. viz: Mouth, Rectum and Hypodermically, and another method which has now come in to discussion which is to draw it under the epidermis in the Quinine. By mouth is not so much common; to Rectum sometimes resorted to, not if there are other channels available. The Hypodermic method is not so eligible, as the Physician has to prepare

whenever it is administered. The dose is, 1/3 as large as by mouth; and when given by Rectum two or three times as large.
The Hydrodermic method is indicated when it cannot be given by the stomach, or whilst effects have worn out by the stomach, and when immediate action is desired &c. &c.
And now after I have done, I take leave to beg of the Faculty, some of which are acquainted with my long and painful affliction; that if I have fallen short of the standard prescribed, that they turn a deaf ear to my imperfections the great mainspring of humanity. And whilst painfully conscious of the great loss I sustain in being deprived of

so much valuable instruction, I can but hope that my attainments may prove sufficient to merit at their hands, my greatest desire.

3

AN

Inaugural Dissertation

ON

The function of the digestive fluids

Submitted to the Examination

OF THE

Provost, Regents and Faculty

OF

PHYSIC,

OF THE

UNIVERSITY OF MARYLAND,

FOR THE DEGREE OF

DOCTOR OF MEDICINE,

By

George H. Carpenter

of

Virginia

Session of 1867 & 8

The functions of the digestive fluids

It is in the last month of the session that I undertake to come play with the so much dreaded Theses case of Medical College I suppose every student considers the subject of his choice as far amount to any other, in its importance to the profession, I think I can justly regard mine as a part of the most interesting, & important physiological questions of the day. Not only is it beautifully interesting to the physiologist, but the necessity of a thorough knowledge of digestion by the thera-

dentist is apparent to everyone who is capable of duly appreciating the pathological condition of a part unless he first know something of its physiology, and I can conceive of no subject in physiology having a more direct importance in the management of disease than catalytic digestion. The sustaining treatment now generally adopted in all diseases which tend to kill by asthenia has for its object the nutrition of the body, and for the accomplishment of this end my subject plays a conspicuous part. Knowing that there is a

constant waste going on within the body — of all its tissues — it is for this that physicians be know what articles of food are necessary for their replacement, and the mode by which they are prepared for assimilation.

With a view to brevity I shall merely mention the classification of food as laid down in the table for the support.

Food is primarily divided into 1st, inorganic embracing water the salts &c, 2d, Organic non nitrogenous embracing starch, sugar, fat &c and Thirdly organic nitrogenous

inous. That is the albuminoid substances. We have then, given us by nature, articles of food corresponding with the "proximate principles" of the body. How are they digested? The answer is, principally, by the digestive fluids. Which are four in number, to wit; Saliva, gastric juice, pancreatic juice, the intestinal fluids, & the bile.

The saliva is secreted by the parotid, sub-maxillary, and sub-lingual glands, and by mucous follicles of the mouth. That from the parotid gland according to Prof. Flint Jr. alone, is secreted only during the act of mas-

lication; and being quite fluid enters into and becomes intimately mixed with the alimentary bolus. Thus moistening it. At the same time it is undergoing subdivision by mechanical action. The sub-maxillary being quite viscid, does not so intimately incorporate with the bolus; but forms with the other two fluids a kind of covering for it which from its smoothness greatly facilitates its passage to the stomach and prevents irritation and abrasion of the lining membrane of the fauces and oesophagus. Besides this and its function in common with the other

It seems to be closely associated with the secretion of gastric juice which is evidenced by its rapid secretion when a desirable article of food is brought in sight of the dog.

The submaxillary gland and that from the mucous follicles among the great viscidity contributes largely to the formation of the smooth coating of the alimentary bolus thus greatly assisting deglutition. We will now take the mixed saliva and mention its function in salivary digestion, namely, the conversion of hydrated starch into sub-

brain and then into grape sugar or glucose: the salivary substance being the only one catalytically affected by the saliva. Dr. H. Flint jr. demonstrated this action to his class by taking into his mouth hydrated starch, keeping it there for a few seconds and then applying Trommer's test which distinctly showed the production of sugar. The success of this experiment convinced me that this action of the saliva is more quickly manifested, and exists to a greater extent, than is generally taught by physiologists. Digestion function is by its saliva-

limiting to exact the secretion of the acid gastric juice which I now consider.

The gastric juice is secreted by the gastric tubules of the stomach and has been conveniently collected for experimental purposes by means of artificial gastric fistulas in dogs a process suggested by the accident-victim immortalized as Alexis St. Martin and Dr. Beaumont.

The gastric juice as obtained by Beaumont and others is a clear watery fluid - not viscid - of strongly acid reaction. It should contain - to the degree

importance of the saliva. It appears
in the stomach only during the actual
[illegible] of food and the secretion
[illegible] of the varied saliva
is excited by the [illegible] and
the [illegible] of digestion [illegible].

Now upon what articles of food
does the saliva exert its digestive
powers? The answer is upon the
[illegible] substance [illegible]
[illegible] experiments [illegible]
only [illegible] a [illegible] [illegible]
[illegible] substances are but slightly
acted on by it. As collateral evidence
of [illegible] the [illegible] [illegible]
[illegible] [illegible] [illegible] [illegible]
[illegible] [illegible] [illegible] [illegible]

and [illegible] (raw starch) which it hydrates. It has nothing to do with the internal change of starch into glucose or grape sugar, but does not interfere with the function of the saliva while the starch is passing through the stomach.

Now let us see how it effects the Albuminoid Substances. Experiment 5 out side of the body shows that if coagulated white of Egg be suspended in it it is gradually dissolved leaving an almost inappreciable deposit at the bottom of the tube which is insoluble in its that pieces of fresh meat [illegible] in the same way, it gradually dissol-

grated until there remains but a small brownish deposit at the bottom of the tube. If the hard adipose tissue of beef is mutton be subjected to the same process the walls of the fat vesicles with the intervening areolar tissue capillaries, &c, are dissolved and the oily matters set free. In cheese the casein is dissolved and the oil it contains set free. In bread the gluten is digested and the starch remains unchanged. The casein of milk is first coagulated by the acid of the gastric juice and afterwards slowly liquefied as the other albuminoid substances.

These substances, to wit, casein, musculine, gluten, fibrine &c, being the organic nitrogenized or albuminoid substances of the food, are all converted into a new substance called albuminose or peptone, having the general characteristics of organic matters. Hence to recapitulate, we have for the function of the gastric juice the conversion of all albuminoid substances into albuminose or peptone in the food and to hydrate raw starch.

It is easily understood that the digesting process of the gastric fluid upon food is not a simple con-

tion. It is a catalytic action produced by the contact of the albuminoid substances and the organic constituents of the gastric fluid or pepsine. This process requires for its perfection the warmth of the body & the important peristaltic action of the stomach. These are essential conditions of digestion in every part of the alimentary canal - but with a view to brevity I confine myself to catalytic or fluid digestion.

I now pass from this important topic to the consideration of another which from its importance

I class as the third digestive fluid
or the pancreatic juice

Examining now the alimentary bolus
as it escapes from the pyloric end
of the stomach into the duodenum
we find that the only substances
which remain undigested, are sugar
and the fats. Physiologists have
found the study of the three remaining
fluids somewhat uncertain
and certainly very much complicated
owing to the fact that
they make their appearance at
nearly the same point in the
canal, and soon becoming mixed
constituting the mixed intestinal fluid.

The pancreatic juice, and the bile, however, have been obtained in a pure state from the dog, — and their functions experimentally studied — The pancreatic juice is furnished by the pancreas and is secreted only during digestion. "It is a clear colorless somewhat viscid fluid with a distinct alkaline reaction". Its organic matter is known as pancreatine, and like the organic constituents of the other fluids is the most important.

The function of this fluid as determined by observations and

by permeates outside of the body is to emulsify the fats, to convert the starch into sugar and to aid in general digestion and absorption.

When brought in contact with oily matter at the temperature of the body it disintegrates and reduces them to a state of complete & permanent emulsion, that is, "it is reduced to a state of minute subdivision and held in suspension by contact with the organic matter of the pancreatic juice".

This condition is instantaneously & permanently produced and the oily substances are now ready for absorption. This I conceive, to be the most

important function of the fluid & its value may be estimated by its being the main & probably the only provision for this important end. The failure of the pancreas to furnish its secretion allows the fatty matters to pass off undigested with the excreta constituting the disease known as Adipous Diarrhoea, thus furnishing a power of pathological interest. The pancreatic juice has the property of converting starch into sugar. This action is quickly manifested outside of the body. It has this function in common with the salivary fluid which is secreted by

the glands of Brunner and Lieberkühn the latter being the most numerous. The true intestinal juice has been little studied, and its function according to Ballard is the conversion of starch into sugar. Prof Flint in his lectures claims for it an important function in what he names "general digestion" or the preparation of all the constituents of the alimentary bolus for absorption.

The bile is, I believe, given by all physiologists as one of the digestive fluids, though the part it plays

in the process is considerable, however, I think inasmuch as the highest physiological authority of the day have failed to assign its proper function in the process of digestion, I will be excusable for not entering into the discussion of its merits as one of the digestive fluids.

I can understand the prejudice by those unbiased after hearing the very interesting & able lecture of prof Hamilton on the bile in all its various phases, but time will not permit me to enter so with a field and I therefore close with the hope of an opportunity to review the subject in the <u>final</u> <u>review</u>

Gentlemen of the Faculty

Having the impropriety of an apology here. I cannot submit the above without stating that I am fully cognizant of the weakness of my Effort. and that I have by no means done justice to my subject, or to myself. Entering college as late in the Session as I did I have not had the time to devote to the preparation of my thesis that I would desire.

I have given you hastily & briefly my knowledge of the subject & submit it with the hope that I may be pardoned for the many omissions & errors

Febr. 12th 1857 Very respectfully yours

{ George H. Carpenter

AN

Inaugural Dissertation

ON

Diphtheria, with a Clinic Case of Rheumatism.

Submitted to the Examination

OF THE

Provost, Regents and Faculty

OF

PHYSIC,

OF THE

UNIVERSITY OF MARYLAND,

FOR THE DEGREE OF

DOCTOR OF MEDICINE,

By

William H. Eisenhart

Of

York Pennsylvania

Session of 1867-68

Diphtheria.

Diphtheria is a peculiar and very fatal a specific inflammation of the fauces, which sometimes extends into the larynx, and trachea, characterized by the formation of a plastic membranous exudation, upon any portion of the cutaneous or mucous surface which is exposed to contact with the atmosphere.

History.

It appears to have been known for at least twelve or fifteen hundred years, but is only comparatively of late [illegible]

become of so frequent occurrence, as to have engrossed the minds of medical writers with its important pathology and treatment, which are still very imperfectly understood; though its fatal tendency is so well known as to give it a place among the diseases of importance as regards its nature and treatment.

Nature

The pathology of this disease is as yet involved in doubt. Some writers contend that it is only a variety of croup, rendered more malignant by the constitution and general health of the patient at the time of the attack.

That it very closely resembles croup is very true. The main distinctive features of the disease is that it is a true fever, generally attended with great depression, while croup is a local acute, inflammation, and is usually confined in its attack to children. The exudation in croup always commences in the larynx, and trachea, while in diphtheria it commences in the fauces and from thence spreads into the larynx.

Others, suppose that it is nothing [illegible] the scarlet fever characterized by a [illegible] -rance of throat symptoms [illegible] appears

disproved by the fact that it does not proceed from it. The sequelae are also different showing that the two diseases are distinct and separate.

In diphtheria we never have any dropsical symptoms, but we do have a peculiar loss of nervous power and tone of the eyes, which never occurs in scarlatina. Some think it is dependent on a parasitic fungus growth, this is denied by a great many as a cause of the disease. Though it may be true that in all cases this will be found to exist. The best that we can say of the cause of the pathology of this malady is that it is essentially a blood

Pain [illegible] zygomatic character

Symptoms

The symptoms of this disease are various, in the commencing and advancing stages, as also in different cases. In the commencement of the attack, they are usually those that attend common angina, such as soreness of the throat, difficulty in swallowing, fever, and bad [illegible], which [illegible] sometimes [illegible]. The [illegible] usually of an asthenic type, though in the worst cases there may be little or no fever but this condition is generally [illegible]

indications of a more serious disease than angina

and, upon making an examination the fauces

and tonsils will be found of a bright red or dark

color, and upon one or the other tonsil sometimes

in the fauces, small irregular circumscribed patches,

of white yellowish or dark colored Membrane

formed by the exudation of [illegible] the blood,

which coagulates forming a [illegible] of variable

consistence, usually of a dense and tough character.

The exudation continues spreading irregularly over

the tonsils and fauces, the submaxillary and cervical

glands are usually somewhat swollen if the disease

the pulse is small quick and feeble

After a time the membrane begins to disintegrate and be removed, frequently giving out a fetid odor, and if the disease is not arrested by the remedial means employed, the membrane extends into the larynx constituting diphtheritic croup, the symptoms now increase in severity and deglutition becomes very difficult, fluids taken by the mouth return through the nostrils, respiration becomes very much obstructed, the voice and cough becomes hoarse or entirely suppressed. There is great depression of the vital powers and the patient is semi-comatose. About this time the diseased action passes into the nares and is attended with profuse

discharge of very offensive smell. (which is characteristic of this extension) If the false membrane is not removed by mechanical means, the mucous membrane is found to present no solution of continuity, but there will be minute bleeding points allover the surface from which it has been removed, and in a short time it will form again. The formation of diphtheritic false membrane is not confined to the mucous membrane but may take place on any part of the external surface of the body, provided the epidermis be removed. The appearance of the false membrane if carefully removed

by the unaided sight is of the character of fibro-plastic membrane, when examined by the microscope it is found to consist of the ordinary constituents of such structures, but varies somewhat. It is composed chiefly of "Molecular particles, epithelial cells, of all kinds and shapes! Pus and blood cells and sometimes if not in all cases, which I think would be if a careful examination were made parasitic fungus growth will be found.

Causes.

The causes of this disease are not at present certainly known various

conjectures are presented, the most probable of which are a peculiar predisposition of the system, certain conditions having a tendency to debilitate the general health such as extreme cold, or excessive heat, sedentary habits, with a too luxurious diet, the depressing passions, violations of the laws of health, and in fact all influences tending to deprive the vital powers may be sometimes the exciting causes of this disease.

The parasites found in the false membrane in this disease, are thought by some to be the cause of this terrible malady and with sufficiently a great degree of probability when we

take into consideration the well known irritant-
action of parasites on mucous surfaces, especially
when they are predisposed to inflammation as they
undoubtedly are in this affection.

It is not improbable
that they may act through the blood also; but
their constant existence in this disease is denied
and how great a share they have in the cause is
very uncertain. The disease is sometimes
epidemic supposed by some to depend on peculiar
conditions of the atmosphere. The fact
that it may be propagated by contagion,
tho' it is infectious sometimes of Hunts

is admitted by all. Though perhaps very rarely, Inoculation with the secretions of Diphtheria are said to have produced the disease, and it would behoove us to be careful, not [illegible] Fomites that are employed in Diphtheria in patients affected with the disease as it ought to propagated in that way.

In the end & sum of all things said to produce Diphtheria, it would appear that there is no known poison capable of producing it but that it is generally brought on by any thing capable of lowering and deranging the vital powers of the System.

Diagnosis.

The diseases with which Diphtheria is liable to be confounded, are croup, ulcerated and Malignant sore throat; from the first it may generally be distinguished by the membrane in Diphtheria forming on the tonsils and fauces first, while in croup it usually commences in the larynx. The swelling externally and the asthenic type of fever also serve to distinguish it from croup. Croup usually attacks children under ten years of age. Diphtheria is not confined to any particular age. and the increasing

in swallowing is absent.

In croup the first symptoms are an alteration in voice and stridulous breathing. From the second or ulcerated sore throat it may be distinguished by not presenting the excavated surface of that disease. Though in some cases it will require exceeding care, it can be distinguished from the third or malignant sore throat, by its not having the gangrenous slough, of that variety. The appearance of these last two varieties of sore throat are sometimes presented in Septic Fever after the palate becomes or chocolate [illegible], and a constant discharge [illegible]

difficult if not impossible.

Prognosis

The prognosis of diphtheria is generally unfavorable; this is especially the case should the exudation take place in the larynx; the depression of the powers of life in this disease are generally very great and when this extension takes place the patient is apt to sink from the prostration of the nervous system, and insufficient aeration of the blood. In the worst cases they are apt to be followed by very serious symptoms such as paralysis in its different forms more frequently local than general.

The muscles of the fauces and larynx are more frequently attacked or paralyzed than any other parts; sometimes there is amaurosis and ophthalmia. The paralysis is supposed to be the effects of the poison on the nervous system and this opinion is confirmed by the results of the treatment. It usually yields to tonics; nervous electricity, and astringents are also very useful.

Treatment.

As before stated diphtheria is a blood disease and must therefore be treated constitutionally. The treatment of this disease has been very

unsatisfactory; and it is comparatively of late that it has become anything like settled, There are still those who recommend one plan of treatment, and others a course directly antagonistic, thus some may say it is best treated antiphlogistically, on the other hand there are those who say the stimulant plan is best suited to the disease. Now either plan pursued to the exclusion of the others is very injurious and dangerous as what is beneficial in one case may be dangerous in the other, therefore it would be best to treat the disease according to the indications.

regardless of the one or the other method.

If the fever fluctuates in the first stages of a sthenic type, it may be necessary to apply a few leeches to the angle of the jaw, but bleeding is considered useless. At all events stimulants should not be employed, the diet should be mild unstimulating and nutritious, when the fever is more of an asthenic type stimulants may, and should be given, to sustain the vital powers the prostrating influence of poison, as the disease progresses. In the commencement of the treatment some recommend the use of an emetic. This is

seldom necessary. Here we some mild purgatives, this will be very good in the beginning of the treatment but should not be pursued on throughout, when there is considerable heat then cold and wet applications are sometimes very useful; but it may sometimes become necessary to use warm fomentations especially in the latter stages.

Tonics and Stimulants will be required in the severe and malignant cases and should be commenced as soon as the patient shows any symptoms of sinking, the Tonics recommended as among the best are Quinine, Iron and Sulphuric Acid.

Hydrochloric acid, with it internally such as beef tea, Brandy, Wine, Milk and a good nutritious and easily digestible diet. When the patient is unable to swallow, stimulating and nutritious injections should be used to sustain the vital powers.

But with the constitutional treatment there is the local which if not the more important is certainly very necessary and should not be neglected, though some say that it is useless to treat a constitutional disease locally. I would not recommend that barbarous and cruel not to say dangerous practice of using strong and powerful caustics

which are almost sure to do harm, and increase the danger of the patient. But some mild astringent solutions are very useful and necessary. The removal of the false membranes by forceps or other mechanical means cannot but be injurious. The membranes form again and probably earlier than before consequent on the increase of the irritation, such measures are sure to produce. In very mild cases the local treatment might possibly be all that is necessary. Unfortunately such cases are very rare. As local applications various substances have been

used with more, or less advantage.

Among the best are Sesq. Ferri chloridi and Chlorate of Potassa the former of which as before stated is one of the best internal remedies.

Also Solution Nitrate Silver, Tannic Acid, Capsicum, Chloride of Soda, the last mentioned being especially useful in correcting the fetid odor of the discharge from the mouth and when the disease extends into the Nares, then some of those solutions mentioned may be injected up the nostrils, various other astringent solutions are occasionally used. The solutions mentioned, should not be made bathing the

average strength should be from 10 to 15 grains of Nitrate Silver to the fluid ounce. and the Muriated Lint. from these may be applied to the diseased parts by means of a camel hair pencil or they may be used as a gargle every three or four hours as the case appears in demand. When the system begins to feel stimulants must be employed to sustain the sinking powers. those most commonly used are Beef tea, Brandy, wine, Carbonate ammonia, and a nutritious diet. The paralysis is best treated with tonics and nervous stimulants, such as Liquor Strychnia

and electricity, and finally when all other means fail, the operation of tracheotomy should be performed, the object of this treatment is it has undoubtedly saved life in cases where the patient would have perished had not the operation been performed, this operation should not be delayed so long it is proper to operate as soon as it is evident that the patient cannot recover unless the obstruction in breathing is speedily removed. When there is extreme depression it may be altogether unless a proper time operation as it would only hasten the fatal result. End of Thesis.

Clinical Case of Rheumatism

Mr F.R. Aged 24 Labouring Man.

I was called to see him October 23 1847.-

When I first saw him he had chills and fever complaining of a bad taste in his mouth tongue coated, I gave him purgatives calomel and jalap. I called in on the 24. he had high fever pain in his thighs and ankles even extending to all joints of the body, Pulse 84. of moderate strength heart sounds, and impulse normal, joints are more or less swollen intense pain through the whole body, skin not to be touched. then bathed with perspiration fluid increasing

I gave him the following mixture ℞ Solution

Mur Morphia ʒ ss Bi Tart: Potassa ʒ ss Spts Nit. Aether ʒ ij

Aqua ℥ iij one tea spoonful every four hours.

October 26th Swelling has somewhat diminished

pain about the same as when last I saw him

pulse go strong continuing the mixture.

27th Pain diminished but still very acute

limb more swollen. I gave him lemon juice ℥ ss

three times a day. 29th Pain and swelling have

slowly subsided since last I saw him but there

is still considerable soreness and stiffness about

the joints continuing the lemon juice.

November 1st Swelling has very slightly increased

but acute pain has again returned in the right leg which he cannot move and he told me that he felt a severe stitching pain in his back. Stopped the lemon juice and gave him Potassa Nitrate ℥ss aqua ℥xj one table spoon full three times a day. 3rd. Pain has now disappeared and wants to be up he says he feels quite well but weak, appetite good.

November 6th.

He sent for me again, he had been out about and working some and rising with, he caught cold and now has pain in his breast. Slight cough. I gave him some

Antimonial Mixture. In the evening he was
seized with severe pain in his left side so bad
over that he was afraid to draw his breath that
he suffered as though a knife were run into
his side, I applied a blister over the seat of
pain and gave him Camphor Anod. Opii - and
Spts Nitr Aether ~~aa~~ xv ~~m~~ every three hours pain
soon diminished and in the morning he
was better. Was seized with rigor in the evening
of the 8th followed by fever symptoms skin dry
and hot, slight eruption severe headache pain
in the back and in all his limbs tongue
dry and furred no appetite but excessive

thirst pulse 90 full, but soft frequently intermits
short and dry cough dullness on the right side
of the chest. I gave him an antimonial mixture
applied leeches to his head. November 9th slept
well during the night no delirium. skin still
hot and dry eruption a little more plain
tongue more dry and dark furred, pulse 8[illegible]
soft. I gave him Quinine in eight grain
doses every four hours. Too Mr. has taken
the powders since I saw him last no marked
effects except the pulse is reduced and
he has been sweating freely for the last
two hours. Still severe headache and slight

Delirium. Nov 12th slept most of the night

slight tingling in his ears this morning but only

transient, dull and stupid seems very weak

slight cough, pulse 75 - small and soft stopped the

Quinine, gave him four ounces of wine with Sulphate of

Arthur four times a day, very drowsy no delirium

Nov 15th. Urine to day loaded with lithates

Countenance livid, skin not very hot but moist

Erythema has disappeared. Nov 17th pain symp-

toms have returned slight delirium, drowsy

and stupid taking notice of nothing around

him pulse 80 full and soft. Nov 20th he

complains to day of pain in his stomach

with much nausea slight vomiting in the afternoon. I gave him an emetic which produced copious vomiting, nausea, and pain in the epigastrium followed by profused sweating.

Nov 23rd Has had considerable diarrhoea during the last two days, I gave him the Opium pill and Tannin. Slight delirium to day skin hot and dry pulse 92. full and irregular, has a cough which is troublesome. Expectoration brought up with great difficulty. Respiration I gave him three ounces of wine daily and an expectorant mixture. Nov 25th Respiration sweating most constant, I gave

him three ounces of Brandy in addition to the wine. pulse 102 small no appetite Cough better but very weak. 27th Skin cool and moist. appetite a little better, I gave him four grains of Quinine aa gr x pulse fell to 90 small and yesterday continued the Brandy and wine, and he continued to improve slowly. I saw him on the first of December he was doing very well. and on the third of December in the morning as he was rising from bed there was several of his friends in his Room he said that he was freezing and fell back and died.

Eight hours after death he was blue

along the spine.

AN

Inaugural Dissertation

ON

Dysentery.

Submitted to the Examination

OF THE

Provost, Regents and Faculty

OF

PHYSIC,

OF THE

UNIVERSITY OF MARYLAND,

FOR THE DEGREE OF

DOCTOR OF MEDICINE,

By

James H. Summers,

of

Westminster

Carroll Co. Md.

Session of 1867 & 1868. 1868

[illegible]

[illegible] H. Bullen.

[illegible]

[illegible]

may cease either with or without [illegible]
premonitory symptoms, Lassitude,
[illegible] with some slight pain, and a
General sense of Uneasiness [illegible]
[illegible] in the [illegible]
local symptoms are sometimes manifested
before the general or constitutional one
becomes apparent, or in [illegible]
[illegible] period, there may be [illegible]
[illegible] its course. Again [illegible]
[illegible] may be developed [illegible]
[illegible] local symptoms. During [illegible]
[illegible] Opening [illegible]
[illegible]
[illegible]

[illegible]

[illegible] in this disease [illegible]

[illegible] and [illegible]

[illegible]. But, it's also important to [illegible]

[illegible] complications [illegible]

[illegible] mucous membrane of the large intestine,

[illegible] but a mild affection. But a

[illegible] a general morbid [illegible]

[illegible]

[illegible] to describe [illegible]

[illegible] mention incidentally [illegible]
complications, which may [illegible]
[illegible]
[illegible] simple dysentery is [illegible],
by griping pains in the abdo[illegible],
[illegible] occasionally occurring [illegible]
[illegible] accompanied with dis[illegible]
[illegible], which often gives the [illegible]
[illegible]
[illegible] effectual attempt [illegible],
[illegible], he only succeeds [illegible]
[illegible], and after a [illegible]
[illegible] shaking [illegible]
in [illegible] case in abdominal [illegible]
[illegible] upon [illegible] the region of the

[illegible] is almost necessary, the [illegible] of [illegible] [illegible] [illegible] [illegible] ~~and~~ [illegible] [illegible] [illegible] [illegible] only by partial [illegible] [illegible] [illegible] occasional [illegible] [illegible] [illegible] [illegible]

[illegible] intermingled with the [illegible],
[illegible]
in some cases. The discharges [illegible]
small in the early stage, but later in the
disease they become [illegible] of
dysentery, and quite distinct from the faecal.
A difficult micturition is present in
cases, owing to a [illegible] condition of
the bladder and urethra, which is [illegible];
there is tenderness on pressure across
the epigastrium, and along the right [illegible]
of course indicate that the inflammation
should be [illegible]
[illegible]
[illegible]
[illegible]

and power, the skin wa[illegible]
urine [illegible]
created, the secretion of bile is [illegible]
diminished. In cases of great [illegible]
[illegible]
[illegible]
temporarily, the patient exp[illegible]
[illegible] of [illegible]
cold damp skin, feeble pulse and [illegible]
[illegible] nausea and vomiting [illegible]
[illegible] of the disease, vomiting is [illegible]
[illegible] of [illegible]
[illegible] the disease [illegible]
[illegible] takes a favorable [illegible]
[illegible]
[illegible] recovery. [illegible]

[illegible]

[illegible] very great, [illegible]

appear at the [illegible]

quickly death. [illegible]

yield to the violence of the [illegible]

[illegible] unable to reach under this continued

influence of the disease. The [illegible]

patient can be brought [illegible] a pulse [illegible] a

pale and cool skin, anxious and sunken [illegible]

lines and livid appearance under the Eyes,

about the lips and at the [illegible],

while at the same time [illegible]

and tenderness; increased [illegible],

delirium and great tenderness [illegible],

these cases prove fatal [illegible]

[illegible] symptoms [illegible]

[illegible] the day, the [illegible]
aggravated. The [illegible]
increase, the abdomen [illegible]
under, the discharge [illegible]
pulse weak and [illegible]
become more offensive and are mixed
with muddy matter. The pulse [illegible]
[illegible] from the [illegible] of the [illegible];
though the convalescence is usually
slow, the case not unfrequently [illegible]
into a chronic form. Prognosis: [illegible]
expect a favorable termination [illegible],
but the pain [illegible]
[illegible], the [illegible] [illegible],
[illegible] [illegible] [illegible],
a local character, [illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

a very weak frequent and [illegible]

hiccough, increasing shock [illegible] in

consultes abdominal [illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible] proportional [illegible]

[illegible] and [illegible]

[illegible] a [illegible]

[illegible] the progress [illegible]

[illegible] separate [illegible]

[illegible] epithelium [illegible]

[illegible] an in [illegible]

[illegible] anomalies [illegible]

[illegible] it is [illegible]

[illegible] circumstances [illegible]

[illegible] terrible ravages, [illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible] no danger, [illegible]

[illegible] preaching the gospel after death

[illegible]

[illegible] short-career of the [illegible]

[illegible] that alcoholic [illegible]

[illegible]

[illegible] is not only [illegible]

[illegible]

[illegible] cases are [illegible]

[illegible]

[illegible]

presenting in different cases [illegible],

exfoliation from desquamation of the

epithelium, adhesion [illegible]

[illegible]

[illegible] oil.

[illegible] located in the [illegible]

[illegible] The [illegible]

[illegible] usually [illegible]

[illegible]

[illegible]

[illegible] to pro~~per~~tuberance [illegible]

[illegible] greatest [illegible] c[illegible]

the pro~~per~~tuberance [illegible]

[illegible] numerous, and sometimes [illegible],

giving to the surface a lobulated [illegible]

[illegible] of [illegible]

[illegible]

[illegible]

the [illegible] corresponding [illegible]

[illegible]

[illegible]

[illegible] alkaline may p[illegible]

[illegible] appearance [illegible]

[illegible] [illegible]

[illegible] [illegible]

[illegible]

of

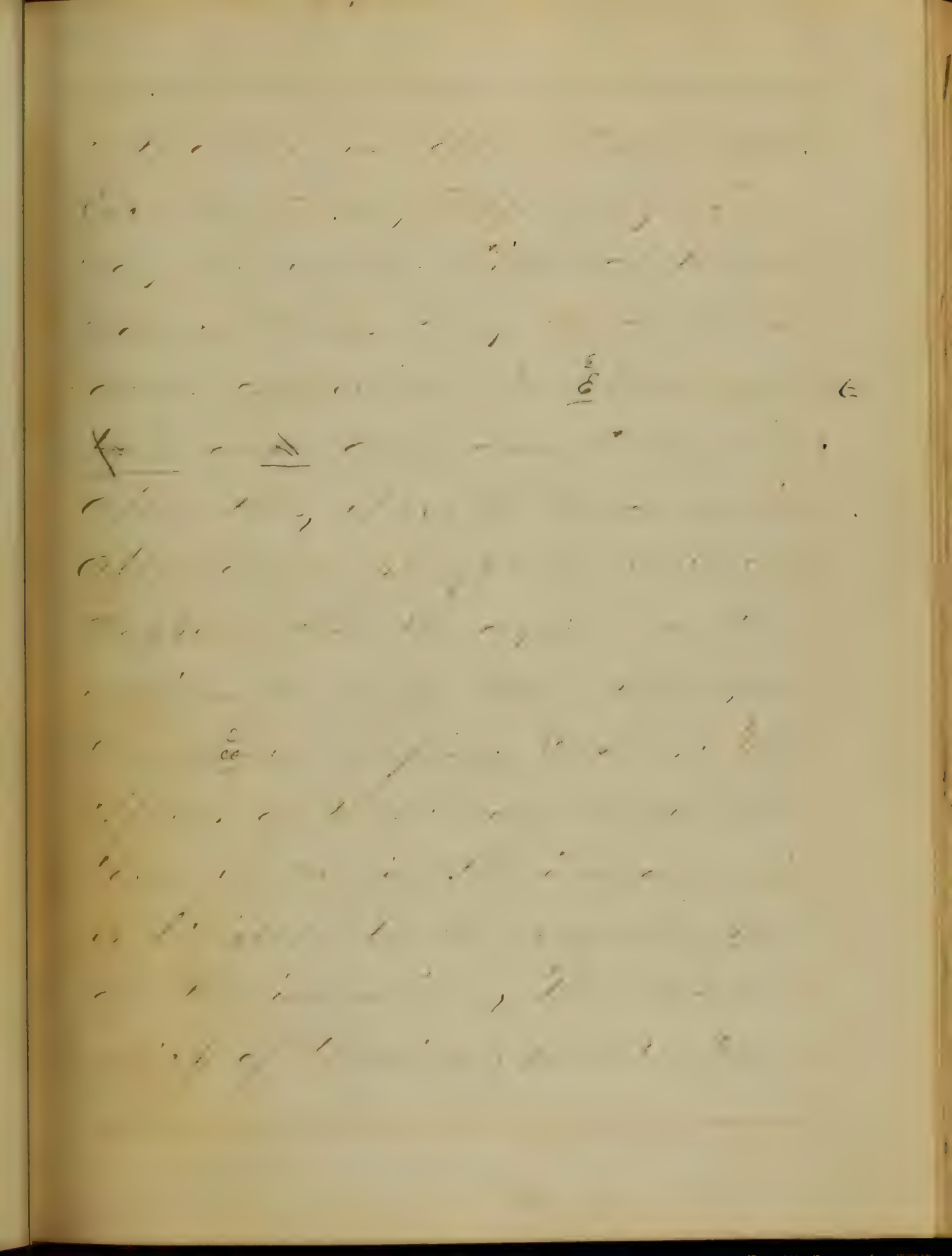
Transactions

Suffolk.
Postwick.

E

Or

Evacuated



first first

first

enclosed

grateful

grateful

[illegible]

AN

Inaugural Dissertation

ON

Pulmonary Tuberculosis

Submitted to the Examination

OF THE

Provost, Regents and Faculty

OF

PHYSIC,

OF THE

UNIVERSITY OF MARYLAND,

FOR THE DEGREE OF

DOCTOR OF MEDICINE,

By

Peter Dausch

of

Baltimore Md.

Session of 1867 — 1868

The disease which I have selected as the subject of my thesis is known under various names, which are derived from different languages. It is known as Pulmonary Tuberculosis, which words are derived from the Latin, pulmo, pulmones, the lungs, and tuberculum, a little swelling, or push; a pimple, or wheal. It is also called Phthisis pulmonalis the word

phthisis being derived from the Greek word φθίσις, a passing or wasting away. This word is expressive of the great wasting away of the whole body consequent on the disease.

In English the disease is commonly known under the name of Consumption. Of these various names no one is better adapted to express this peculiar form of disease than Pulmonary Tuberculosis.

The term Pulmonary Consumption denotes an affection of the system, in which the lungs are the most prominent part affected.

This affection is especially characterized by the great wasting away of the whole body, which attends its progress.

Although we have progressive emaciation in other affections of the body, yet the passing away is never so great and so well marked as it is

this disease. Hence our able professor Richard Mc. Sherry says that, if we see a patient with a quick, tense pulse, an elevation of animal temperature, and a progressive emaciation, we may suspect that fearful enemy, Consumption. Of all the diseases to which mankind is subject, this is one of the most prevalent and fatal, causing, ordinarily, one sixth of all the deaths of the human race.

But before we proceed farther into the history of this disease, let us first take a glance at its anatomical character.

Pulmonary Tuberculosis means the deposition in the lungs of a morbid product called tubercle. What is tubercle? In pathological anatomy tubercle is a morbid exudation which consists of an opaque matter of a pale color; this, in its crude condition, has a consistence analogous to cre-

cele albumen; it subsequently becomes soft and friable, and gradually acquires a consistence analogous to that of pus.

Tubercles may be developed in different parts of the body, but they are most frequently found in the lungs and mesentery, and occasionally in the lymphatic glands, brain, spleen, kidneys and liver.

Most writers now agree that under the head of tubercle, they

embrace two kinds of deposits:
one kind is known under the
name of gray or miliary tubercle,
the other is called the yellow or
caseous tubercle.

The gray or miliary tubercle derives
its name from the small size of
its deposits, which are not larger
than a millet seed. These tubercles
are small, roundish, shining,
semitransparent, hard bodies,
either isolated or in aggregate
masses, on which portions of the

pulmonary tissue is indurated and consolidated. It is the presence of these in immense quantities, which constitutes the disease called acute phthisis. These tubercles are also sometimes found in association with the yellow or true tubercle. The ordinary form of tuberculous deposits, which occasion the so called chronic phthisis, are the yellow or true tubercles; these as their name indicates, are usually of yellow color and cheesy consis-

tence, being soft and friable.
These tubercles multiply and
enlarge by growing together,
until masses are formed, while
at the same time fresh deposits
take place in the surrounding parts.
If we examine them microscopically,
we find corpuscular bodies enclosed
between them, which is a property
peculiar to this kind of tubercle.
The deposition of tuberculous mat-
ter depends upon a special con-
stitutional cachexia. It generally

takes place first at or near the apex of one lung, and as the disease advances, extends more or less downwards towards the base, and finally the deposition also takes place in the apex of the other lung, and also extends downwards towards the base. The next change that takes place in the tubercle is the softening process, which usually commences in its centre, and gradually advances to

wards the circumference, until the whole of the tubercle is converted into a soft, yellowish mass, which has somewhat the appearance of pus. At this stage of the disease inflammation of the surrounding tissues is produced by the irritating properties of the matter, which finally ends in ulceration and in the production of an opening between the tubercle and the bronchial

tubes; the matter now escapes into the bronchial tubes and is expectorated by the patient, leaving a cavity behind, which the older writers term vomicae. This tuberculous cavity may not be larger than a pea, or it may occupy a half or whole lobe of the lung, according to the quantity of the lung destroyed. Cavities are very seldom produced in infants, oftener in adults.

Having examined the anatomi-

cal characters of this disease, we shall now pass to its clinical history, which embraces the symptoms and course of this affection.

<u>Symptoms.</u> Most frequently one of the first symptoms in the early stage of phthisis is a sallow, pale aspect, attended with a short, dry, hacking cough, so slight at the commencement, as to scarcely attract attention; the patient gets a dislike for fatty articles of food, suffers loss of

muscular power, not unusual.

But I have almost forgotten to mention that the very earliest symptom I can discover is an elevation of the animal temperature; and we should never fail to apply the <u>animal thermometer</u> in this disease, especially in its early stages, if we are in doubt whether this affection is existing in the patient or not. I have seen several physicians misled by the general symptoms above

mentioned, who supposed that the patients were labouring under the first stage of phthisis, when in reality they had nothing but a slight attack of bronchitis, or laryngitis. In order to prove that my statement is correct I will cite the following case, which came under my care, and attracted my attention.

In May, eighteen hundred and sixty-six, I was called to see a colored female patient, suffering

in a country-town of this State, supposed to be labouring under that formidable affection, consumption. Her statement to me was, that she had been laboring under a severe cough, accompanied with frothy expectorations and deep seated pains in the chest, for over fifteen years; that two physicians had been attending her for some time, who pronounced that she had consumption. Becoming disgusted with their treatment or

discharged them, and being well acquainted with me, sent for me. When I arrived at her house, I found her very nervous; this condition of her system had been brought on by a violent attack of her severe cough, of which I have spoken, and which gave her no rest at all at night. One peculiar feature connected with the patient's cough was that as often as she drank cold water, the cough ceased for a while. I prescribed paregoric, but

could not discover the slightest ful-
ness; I put my ear to her chest, but,
with the exception of a watering
of the respiratory murmur, I found
out no auscultory signs, indicative
of the presence of tubercle. The pa-
tient's pulse was normal; and to
make sure that she had not con-
sumption, I applied the animal
thermometer. Now, what did I
find? The animal temperature
of the body was quite normal,
not exceeding ninety-eight degrees.

Thus we can see of what importance that little instrument, the animal thermometer, is. We should never form a diagnosis in such a disease without having first applied it. Another peculiarity about this patient was that she always complained of a tickling in the throat. I made an examination, and to my surprise I found that the uvula was very much elongated which was the exciting cause of most of the cough. The use I was

able to account for this positively, viz, that the cough would cease for a while, when she drank cold water; the uvula being by this means contracted and the tickling in the throat being thus checked. Now this patient had nothing but a slight chronic bronchitis, with elongated uvula. I immediately cut off the uvula, and gave them a morphine expectorant, and in a few days I had the pleasure to see my supposed consumptive patient

perfectly well.

Another characteristic symptom in consumption is a shortness of breath on occasion of any unusual exertion, and a peculiar flushing of the cheeks, with heat in the palms of the hands, and soles of the feet. Occasionally the patient feels fugitive pains between the shoulders, in the sides, and sternum. But the most characteristic symptom is progressive emaciation.

In this condition the patient may continue for weeks, months, or even years. His cough he ascribes to a cold; his pains to rheumatism, or neuralgia, until an attack of hemorrhage from the lungs excites alarm.

The symptoms now become aggravated; the cough becomes very troublesome, generally disturbing the patient's sleep at night; the expectoration is of a more purulent form; hemorrhage returns

again, and the patient is seldom long without a discharge of blood from the lungs. The dyspnœa also increases; the patient's tongue becomes coated, and his appetite impaired. The first stage is now at an end, and the disease passes sometimes abruptly, sometimes gradually, into the second stage. It is however not easy to draw a line of demarcation between the two stages, nor is it of much practical importance. The disease is to be

considered as being in the second stage only when a cavity, or cavities, exist in the lungs of sufficient size to give rise to certain signs.
The symptoms of the first stage continue in the second; merely increased and aggravated by the existence of cavities. The most characteristic symptom in the second stage of phthisis, is the peculiar appearance of the expectoration, which is decidedly purulent, and, in well defined masses,

accompanied with expectoration in the shape of small, yellowish lumps of matter. The cough becomes more prominent, and is very troublesome in the morning, when the accumulations of the night are to be discharged from the lungs. The quantity of matter expectorated is in proportion to the number and size of the cavities; amounting in some cases to only a few ounces, and in others to a pint or more daily. The pulse in the second stage is more

accelerated than in the first.
The fever assumes a decidedly hectic character; febrile exacerbations are oftener present, the heat of the skin becomes increased, especially towards the evening, and subsides with a gentle perspiration at night. The night sweats in this stage of the disease are often extremely distressing, and a source of great discomfort and debility.
The appetite and digestion are also more or less impaired. The patient

experiences heat, pain and oppression at the epigastrium with nausea and vomiting which is occasionally very obstinate. Diarrhoea also is a symptom of the advanced stages; it seems to be dependent upon tubercles in the bowels, which by their softening and discharge, give rise to ulceration and inflammation. Occasionally a bulbous enlargement of the ends of the fingers with incurvation, is observable in this stage of the

disease. We also frequently find a remarkable brilliancy of the conjunctiva of the eye. These peculiar appearances are characteristic of tuberculous disease, but they are not pathognomonic symptoms. The mental condition in the second stage is not less characteristic than in the first; indeed there is generally a remarkable exemption from nervous disorder; the cerebral functions are very little disturbed, and the intellect usually remains

remarkably clear, unless the brain becomes involved in the tuberculous disease. Patients are sometimes occupied in forming plans for the future, when it is obvious to every one that they are on the verge of the grave. I remember, in passing through St. Luke's ward in the University Hospital, at one time, I was asked by a patient, reduced almost to a skeleton, whether I did not think that there was a chance of his recovery.

Sexual Symptoms. Nothing remarkable occurs in connection with the sexual function in male patients; but in the female the menstrual flow is very often arrested, which, of course, increases the danger; but the occurrence of pregnancy often arrests the disease for a time. I myself saw a young married woman who was labouring under phthisis, which, when she became pregnant, was arrested. nay, she also gained flesh and

it seemed as if she was actually recovering from the malady; but no sooner had she weaned her child, than all the former symptoms appeared with increased violence, and she finally fell a victim to that fell destroyer Consumption.

<u>Physical Signs.</u> These are very obscure in the early stages. The first that may be perceived is a slight dulness upon percussion and an obscuring of respiratory sound in that region, where the deposit

has taken place. One of the most characteristic signs of this stage of tuberculosis is a prolonged expiratory sound. As the consolidation increases, the respiration becomes rough and bronchial. The sounds of the heart are also heard more distinctly. As the disease advances dullness upon percussion is increased; the mucous and subcrepitant rales also begin to manifest themselves, and when a cavity begins to exist we can hear a loose crackling sound during

inspiration and expiration.

The existence of a cavity may also be detected by a hollow tubular or tympanitic sound, such as is produced by striking the distended cheek.

<u>Duration.</u> The duration of phthisis is very variable. It may be rapid, slow, or intermittent. Some cases run their course to a fatal termination in from one to three or four months; while others have been known to [illegible]

from thirty to forty years. The average term of this disease is from six months to two years. When the disease is very rapid, it is sometimes called galloping consumption, or more properly Acute Phthisis.

This disease generally runs its course in from one to three or four months.

<u>Nature.</u> Pulmonary tuberculosis is not, primarily and essentially, a disease of the lungs. There is besides a morbid state of the system, which precedes and attends this

affection, and it most probably depends upon it. This state of the system is denominated tuberculous cachexia, dyscrasia, or diathesis. The secret nature of this cachexia is a problem which remains to be solved by future researches. The blood has often been found to contain a deficiency of nutritive material, and a less amount of red corpuscles in persons predisposed to phthisis.

<u>Causes</u>. These may be divided

into two kinds: first, those which act locally, or exciting causes; secondly, those which act generally or predisposing causes.

<u>Exciting Causes.</u> Anything which is capable of irritating the lungs, may act as an exciting cause; thus a very bad cold, or an attack of pneumonia, pleurisy or bronchitis, often develops tuberculosis. It has been supposed that the inhalation of acrid gases, or gases, stone dust, fine particles of

metal, is sufficient to give rise to tuberculous disease. This however is very much doubted. Other exciting causes of tuberculosis are the suppression of long continued morbid evacuations; the healing of old ulcers, especially fistula in ano; and the cessation of menses, and excessive lactation. One of the chief exciting causes of pulmonary tuberculosis in the female is tight lacing; it is highly probable that by interfering with

the function of the lungs, it fa-
vors the formation of tubercles in
those predisposed to them.

<u>Predisposing Causes.</u> The most
influential of these is inheritance,
that is to say, children inherit
it from their parents, and they
again entail it upon their off-
spring. Whole families thus de-
scended are frequently swept away
by this disease. The influence of
cold may also be classed among
the predisposing causes. In fact

anything that has a tendency to produce long continued debility in an individual, may be enumerated among the predisposing causes: as, an insufficient diet, unwholesome air, anxiety, grief, sedentary habits, and the influence of various debilitating diseases.

<u>Diagnosis.</u> A positive and an early diagnosis in cases of pulmonary tuberculosis is of extreme importance, both to the physician, and the patient.

But in the first stage there is generally much difficulty in recognizing phthisis. When a short, dry cough, quick, tense pulse, progressive emaciation, and increased animal temperature continue for some weeks or months, there is reason to suspect phthisis; and if to these symptoms an attack of hemoptysis associates itself, it will now complete the proof. But a positive diagnosis must rest mainly on physical signs.

Dulness on percussion with prolonged expiratory sound indicates the presence of tubercles. A tympanitic sound on auscultation points to the existence of cavities. The respiratory sound obtained by auscultation is either bronchial or cavernous. In addition to these signs there are several others, which inevitably prove the existence of tubercles in the lungs; these are, fine mucous or subcrepitant rales heard at the

summit of one side of the chest; they proceed from circumscribed bronchitis, excited by the presence of tubercles.

<u>Prognosis.</u> The prognosis is in the very great majority of cases of pulmonary tuberculosis unfavorable, on account of the fact, that the mortality consequent on this disease exceeds that consequent on any other, except those diseases that prevail endemically or epidemically; but I do not believe

that phthisis is necessarily fatal in all cases; for with suitable treatment we often see its symptoms abate. The cavities may cicatrize and the patient recover; or the whole tuberculous matter and the animal portions may be absorbed, and the mineral constituents remain quiescent in the form of small tubercles, or they may be expectorated by the patient.

<u>Treatment.</u> As the deposition of tubercles depends upon a general or constitutional morbid condition

and as tubercles when once formed always run their course, the prominent indications in the treatment of phthisis are, to arrest the disease, or, in other words, to prevent a further deposit of tubercle, and to guard the system against their injurious effects during their progress. The first object therefore is to strengthen and invigorate the body; to accomplish this, the patient should take vigorous and long continued exercise in the open air, not such,

however, as would cause great fatigue. This exercise must be taken daily and unremittingly, if possible, for months or years. The patient should also guard against the depressing influence of cold, by wearing warm clothing, such as silk or flannel, next to the skin, with sufficient exterior covering to make himself comfortable. To insure the advantages of warmth, it may be advisable, if residing in a cold climate, to remove, during

winter, to a warmer one. Preference should be given to a place which is at one and the same time dry, of uniform temperature, and within a convenient distance from the sea-shore. Next in importance in the treatment of phthisis is the regulation of diet, which should be generous as regards quality, quantity, and variety. The articles should be highly nutritious and easy of digestion. With respect to the kinds of food, there are no general rules; the patient should be

allowed any varieties of wholesome food which he is able to use with relish, and which stimulate the appetite. We will now consider the remedies which enter into the treatment of this disease. Under this head we may enumerate alcoholic stimulants, which certainly exert a curative influence in certain cases; while in other cases their use must often be abandoned on account of the unpleasant effects they produce on the system.

What then will be the indications by which we may judge of the usefulness of alcoholic stimulants on the one hand, and their injuriousness on the other. In the first place, if they produce comfort and a feeling of strength and do not unduly excite the circulation or nervous system, a great deal of benefit may be expected from their use; on the other hand, if their immediate effect be discomfort, a feeling of

weakness and fatigue, and if they unduly excite the circulation and nervous system their use must be discontinued, or else they will do more harm than good. The method lately introduced of treating consumptive diseases by raw meat and alcohol appears to have been attended with wonderful results. I have myself tried it in one case, and the patient rapidly increased in weight and strength under its use.

Of all the medicines used in phthisis, none have hitherto proved so efficient as cod liver oil. It does not act as a specific, and is not capable of producing the removal of tuberculous matter; but it invigorates digestion, and improves the quality and character of the blood. Clinical observation however shows that it is not useful in all cases. The question at once arises, by what criterion may we judge of its usefulness in the one

heart, and its want of sufficiency on the other hand! For the first place, if it does not impair the appetite or digestion, and if the patient does not feel a dislike for it, a great deal of benefit may be derived from its use. But if it produces derangement of the stomach or bowels, its use must be suspended, for it will be productive of more harm than good. Certain pulmonary symptoms also claim attention. Tonic remedies

such as quinia, bitter infusions, chalybeates, and the infusion of wild cherry bark, which is an admirable tonic in pulmonary tuberculosis, are often used, when there is great debility. Expectorants are not so much used in this affection, because they generally diminish the appetite, disturb digestion, and occasion nausea. But remedies, to allay the cough when it becomes troublesome or violent, are frequently called

for, such as hyoscyamus, conium, belladonna, or hydrocyanic acid or opium. Soothing inhalations sometimes allay the irritation which excites cough. Sometimes the cough is produced or gently aggravated by an elongated uvula, which, if it does not contract by the administration of astringents, should be amputated. Occasionally there is much dyspnœa, arising from nervous temperament which may be treated by

nervous stimulants and narcotics.

The hemorrhage from the lungs frequently requires attention; this may be treated with astringents, as acetate of lead, tannic or gallic acids, and persulphate of iron. Chronic chest pains about the chest, which are frequently connected with inflammation of the pleura, often yield to mild revulsive applications, as, sinapisms and liniments; a plaster of Burgundy pitch or tincture iodine will often afford much relief.

Another source of great discomfort to the patient are the night sweats; these are best treated by the mineral acids, especially the aromatic sulphuric acid; frequently the gallic and tannic acids also afford relief; sponging the body with warm vinegar at bed time often gives relief. For the hectic paroxysms, the sulphate of quinia is the most effectual remedy. Diarrhoea, depending upon the deposition of tubercles in the intestines, must be treated

cheek by opiates and astringents.

Lastly, the great debility in the final stage requires attention. The main object here is to impart sufficient muscular strength to the patient to enable him to expectorate the secretions which accumulate in the bronchial tubes, which, if not discharged, will produce suffocation. Milk, punch, wine whey, egg with wine, beef-tea, carbonate of ammonia and alcohol may here be given; by these means life may sometimes be prolonged

prolonged.

I have now treated of Pulmonary Tuberculosis from its incipient to its final stage, having given a hasty sketch of its various symptoms and the necessary remedies. I wish that it had been in my power to do more ample justice to this important subject. But as I am merely a tyro, or to use plain English, a novice in the medical art, aspiring to the glorious and responsible vocation and duties of

a physician, and so that little time remains for the attending of the lectures, and although meditation thereupon in my closet, I trust, that any shortcomings found in this thesis, will be ascribed to a want of sufficient time for thorough investigation. It has been my constant aim, from the day that I first entered upon the study of medicine, to become perfect as far as this is possible, in the

profession to which I am aspiring, and for that purpose I have, day after day, devoted every leisure moment to acquire new knowledge. In conclusion I will say, that I am proud of having had the good fortune to attend the lectures in the University of Maryland, whose distinguished corps of Professors, is equal to any in the world. And my wish is: long may God spare them for the glory of Maryland, for the

advancement and lore of the medical art, for the weal of the students that will hereafter flock to our great University, and for the benefit of mankind in general.

Quod bonum, felix, faustumque sit.

AN

Inaugural Dissertation

ON

Chloroform

Submitted to the Examination

OF THE

Provost, Regents and Faculty

OF

PHYSIC,

OF THE

UNIVERSITY OF MARYLAND,

FOR THE DEGREE OF

DOCTOR OF MEDICINE,

By

Charles S. Kerr

Of

North Carolina

Session of 1868

Chloroform

"Is a terchloride of a hypothetical base termed Formyl, which consists of two atoms of Carbon and one of hydrogen. Hence the symbolic designation of Chloroform is C_2H,Cl_3"

It is prepared by distilling rectified spirit (pure alcohol) with water and chloride of lime, in the proportions of four pounds of powdered chloride of lime twelve pounds of water and twelve fluid ounces of

of rectified spirit. Mix the chlorinated lime first with the water and then with the alcohol in a distillatory vessel of sufficient size. Then distil with a brisk heat till the temperature approaches to 176° withdraw the fire in order that the distillation may proceed by the heat received solely from the reaction of the materials. When the distillation stagnates revive it by a fresh application of heat and continue to distil until the liquid ceases to come over with a sweet taste. Then separate

the heavier layer of the liquid which has passed over into the receiver from the lighter, by decantation, having washed it first with ~~soda~~ water. Then with a weak solution of Carbonate of Soda, agitate it thoroughly with powdered chloride of Calcium and distill by means of a water bath, stopping the distillation when eleven-twelfths of the liquid have come over. The residue with the light liquid of the first distillation, may be reserved for use in a second operation. U.S. Pharmacopeia (8.)

Pure Chloroform is a colorless liquid of an agreeable ethereal odor, and mildly sweet taste — Tests when dropped into water it should sink without oiliness showing an absence of oils — If poured on a piece of blotting paper and evaporated ought to leave no oily empyreumatic smell. Chemical test is with Concentrated S O3 which gives a dark color if the Chloroform contains any impure oils &c —

Mode of Administration is a brief — which if properly understood & carried out will

do much towards convincing
medical men of its safety.
The following rules are those which
I have gathered from able lectures
and text books written by men of
experience and high professional standing.
It is the preparation of the patient
whose stomach it is always desirable
to have empty. If it be
full vomiting is apt to ensue
followed by the ill effects which
may accompany the act namely the
danger of rupture of the perineal

Matter entering the larynx, the additional expiration produced by emesis - and if the patient have a diseased eye it is apt to be plainly speaking over strained - Again if the stomach be full the movements of the diaphragm are hindered thus impeding respiration, the clothing of the trunk should also be slack so as to permit the free expansion of the thoracic and abdominal parietes - Here the physical condition of the patient should be noticed

For there is perhaps danger in using Chloroform in those cases where there is disease of the substance of the heart, such as fatty degeneration or dilatation, owing to the relaxation which Chloroform produces on the muscles, and consequently the difficulty in maintaining the circulation of the brain through the heart's action. Valvular disease of the heart alone is not likely to be followed by serious results

In Phthisis pulmonalis where much of the lung tissue has been broken down chloroform if possible should be avoided for if the blood naturally is not oxygenated, its administration would only add to the existing trouble. If the patient is a female a witness should always be present as they sometimes entertain ideas not pleasant to the operator.

2nd Genl. rule; is to always measure the chloroform. Some persons show an idiosyncrasy being susceptible

that it is best to commence with a half drachm - A drachm is the usual amount to begin with repeating with a drachm at a time when necessary.

3rd For the safety of the patient it is indispensable when using so potent an article that he should have an abundance of atmospheric air.

4th The patient should always be in the recumbent posture.

5th A cool and ventilated room

is always to be desired — he should have nothing to attend to but the administration of the medicine. A napkin folded in the shape of a cone with both ends open; is impregnated with a drachm of chloroform and held over the mouth and nose at a distance generally of about two inches being gradually brought nearer and nearer until it is within about half inch beyond which it should never be carried. Care always being taken not to allow any

of the liquid to touch the skin as excoriation might ensue.

As soon as sensibility is completely abolished the operation is commenced. This may be tested by raising the eyelid and touching the conjunctiva. If the patient allows this without winking the desired effect has been produced.

Modus operandi of Chloroform.

The precise manner in which it acts on the nervous system is a point of controversy and one which has not

been clearly demonstrated - Perhaps after being absorbed into the blood from the lungs. his conveyed to the nervous centres, and acts on the ultimate nerve structure.

That it acts through the blood is proved by the fact, that if a ligature be placed around a limb so as to interrupt the circulation; the sensibility of it exists even after the other parts have become insensible

The Effects of Chloroform on the Animal economy, may for practical purposes be classed in the following degrees

The first or that of exhilaration is characterized by excitement of the nervous and vascular systems indicated by the quickened and stronger pulse the flushed face and suffused eyes - which stare with a wild expression denoting the mental activity - now approaching such a degree that prudence is

is ignored and the expressions of the patient begins to reveal his peculiarities of temperament & habit. At this time the second degree or abolishment of the mental faculties supervene the intoxication is now complete and in this stage lord all the varieties of human drunkenness display themselves; one man may laugh at jokes of his own making, another is noisy or inclined to show his pugilistic skill whilst the third may simply

reveal his previous vocation - These phenomena are not universal, and even when present are of short duration. For if the inhalation be continued the Third Stage comes on characterized by a "standstill" of voluntary motion and sensation the eyes turned upwards, the breathing slow as in natural sleep. Though the reflex movements are still performed such as sneezing when the nose is tickled; showing that even in this degree the patient is not prepared for prolonged or severe surgical operations.

The fourth degree or that of perfect insensibility is distinguished by the profound sleep — relaxed condition of the muscles, and the loss of reflex sensation and motion. At this point the eyeball may be touched without winking. Here the fifth rule laid down under the head of "Administration" has been carried out, and the operation should be commenced.

If carried farther the fifth degree or the condition of Coma comes on. Marked by slower breathing, and a tendency of the pupil to dilate, and

And if the inhalation be still continued death will consummate the tragedy—
Though the wise Surgeon and the accomplished physician know full well that so potent a medicine can cause death and they do not carry it to such an extent. Then when Chloroform is judiciously used does it deserve the censure which many heap on it? Can not death result from Opium, the king of drugs?
The experience of Surgeons in the recent war where Chloroform was daily used pronounce it safe not only

in words, but by the number of its Medical converts; Many physicians now readily use it who did so formerly with considerable reluctancy. One practical point may be learned from its successful administration on the "Fenton Field". That is the abundance of Atmospheric Air. Operations being seldom performed in close rooms.

Ether was once heralded and acclaimed as the great Anesthetic, but brilliant as its career may have been, it was only destined to be eclipsed by Chloroform

The anesthetic virtues of the latter being so much more pleasant and the sleep more profound are not the only the only points which give it the superiority to Ether. Other advantages equally desirable are possessed by it; among the more important are first the rapidity of its anesthetic action; secondly a smaller amount of larynged and bronchial irritation. Thirdly its influence being more easily maintained and lastly it is not so apt to produce vomiting. However to speak of its superiority to Ether is not the province of an

humble Medical Student, the wise and investigating minds of the learned Chemist and Therapeutist - with the practical Surgeon, will in the future, as in the past, define its virtues and attest its usefulness.

Chloroform is undoubtedly one of the greatest boons which a Kind and beneficent providence has bestowed upon Man; not only is it preeminent for the prevention of pain, but let the Surgeon and patient of the present day, contrast their condition

with those of former times, when one was willing to pain and agony during a tedious dissection and the other had his progress continually hindered by the struggles of the sufferer. It does away with the scruples of the over modest woman to whom the shame of exposure is more than the pain of the knife. It adds wildness to the surgeons knife and allows his dexterity, grace and elegance, to advance the glory of his profession without the opposing struggles of the one who is not often groaning under the agonies of approaching dissolution.

In short it renders that great force the nerve power submissive to the scientific manipulation of man - That force which animates the fearless elephant as he moves majestic over the plains; or the little tiger and hardy lion as they leap tremendous and make the heart falter in its beat by their unearthly roar - That force which fends up from the depths of the troubled and frigid ocean the mighty breathings of the great leviathan; or under whose life inspiring influence the eagle sails in unclouded wing across the rolling deep screaming wildly his cry of

of delight to the great source of his power. That force wherein exists the genius of man is bowed irresistibly to the honest courage of the qualified surgeon.

I am Sirs your most obedient sent. and attached student.

Chas: Stevens Kerr.

Baltimore Md.

Feb the 14th 1868

AN

Inaugural Dissertation

ON

Acute Bronchitis

Submitted to the Examination

OF THE

Provost, Regents and Faculty

OF

PHYSIC,

OF THE

UNIVERSITY OF MARYLAND,

FOR THE DEGREE OF

DOCTOR OF MEDICINE,

By

W. Giddings

of

Loudoun County Virginia

Session of LXII 1867 & 68

This disease so frequently affecting, some of the most important organs, in the human economy, occurs in almost every clime to those of the inhabitants, who are most subjected, to the vicissitudes and sudden changes, of the atmosphere — Yet we find it attacking, sometimes, the old and young, the feeble, and robust, it having less effect upon those fortunate individuals, who are happily blest, in having a good constitution, as a

modifying, agent against
the effects of this disease.
And yet it is not so fatal,
or as much dreaded as many
diseases. Still it from its
frequency owing to the many
exciting and predisposing causes,
"Makes countless thousands
mourn"

Bronchitis, signifies
"inflammation of the lining
mucous membrane of the
bronchial tubes", to which
organs particularly, ordinary
Bronchitis is limited.
A much graver though less
frequent form is developed,
when the inflammation
extends to the fine ramifications,
this is called capillary bronchitis
Several different forms of this
disease, may exist according to
the location, duration, and
intensity, of the inflammation.
It may be primary and

secondary to other pulmonary affections, also occuring as a complication with Pneumonitis Pleuritis &c, sometimes prevailing epidemically, this form known as influenza; these several varieties claim separate consideration, and must give precedence, to the investigation of ordinary acute Bronchitis.

This affection, is generally preceded by Coryza, the inflammation commencing in the nostrils proceeds downward to the bronchial tubes, the period of progression, varies from a few hours to as many

days, the disease is rarely ushered in by a distinct chill, but chilly sensations occur, followed by flashes of heat; pain is not a prominent symptom, yet the patient feels a sense of tightness, and rawness, in the chest; the pain present is of an obtuse character and is felt under the sternum, being very much increased by coughing; this cough being produced by the rough condition of the mucous membrane lining the bronchial tubes. Lassitude and headache with pain in the limbs are complained of with general malaise

The urine is scanty and highly coloured during fever, in the onset. The febrile movement is generally moderate, and the pulse is not so frequent and strong as in Pneumonia &c, while the heat of the surface is not much raised. The cough at first is quite troublesome though not very painful, it is mostly dry the the secretion being scanty with little or no expectoration, deep inspiration of cold air excites coughing which occurs in paroxysms, the patient seems anxious to expectorate, and feels

much better when the cough becomes loose. In the first stages the expectoration is small, glairy frothy, and viscid, occasionally mixed with blood, after 3 or four days the expectoration becomes more abundant and consists of thick yellowish sputa, the fever subsides ~~and~~ and pain is abated while cough is much less frequent as the amount of mucus increases, the inflammation decreases.

The lungs are not much affected in Bronchitis, but owing to the congregation of mucus in the tube respiration is somewhat embarrassed.

The patient should be kept in bed, with the proper amount of covering.
This disease is divided into two stages, the first during scanty expectoration, when the fever and pain is most marked, the second from the termination of the first period to convalescence, the average duration of Bronchitis being from six days to two weeks.
Causes. Primary or idiopathic bronchitis is frequently if not generally produced by cold; Exposure to this agent produces the disease by interrupting the eliminative functions of the skin, thereby increasing the duty of the

pulmonary mucous membrane, and inducing internal congestion.
The exposure of the body to currents of air is most liable to bring on an attack of this disease, tho it is concluded by some that it is due to some morbific agent or at least to some special atmospheric change.
Bronchitis occurs secondarily and forms elements of other diseases.
Belonging to the clinical history of rubeola it may occur with typhoid fever and is then symmetrical but when developed with pulmonary affection is circumscribed.
It can be produced traumatically

by the local action of irritation "
gases for instance the inhalation of
chlorine gas and ~~and~~ the fumes of
sulphuric acid, In some persons
owing to an idiosyncrasy the
susceptibility is so great that
the most ordinary substances, and
even fragrant odors will produce
it. Those persons who live mostly out
of doors, are less liable to bronchitis,
and likewise it effects those most
frequently who remain in warm
apartments

"Diagnosis. Acute Bronchitis is to"
be distinguished from Pneumonitis
and Pleuritis, and especially from
the former. The points relating
to the symptoms which are involved
in this differential diagnosis are
as follows. The absence of the
lancinating pain, the pain in
bronchitis being substernal,
the presence of more or less expec-
toration, which is not rusty, but is
without blood or containing it
in streaks, the absence of lips pneum
and of the circumscribed flush of
the cheeks, These points are however
rather negative at least not

sufficient for a positive diagnosis in all cases, the clinical history however with the results of physical exploration, make the diagnosis sufficiently positive.
Percussion elicits the resonance of health, the vocal resonance being clear throughout the chest. The respiratory murmur may be weakened, but is not otherwise altered, still suppression of the pectoral murmur may occur from an accumulation of mucous in some of the tubes.
Auscultation reveals very obvious changes, the three characteristics are,

first, sibilant rhonchus, if the disease be seated in the smaller tubes. Secondly, the sonorous rhonchus if it exists in the large tubes. And lastly, the mucous rhonchus commingled with the others heard as the disease advances and as expectoration commences.

These points exclude the possibility of pleurisy or pneumonia being present. While the dry and moist rales may or may not be present, the presence of these always indicating Bronchial trouble, but the absence of the disease must not be inferred because these signs are wanting.

at the time of examination."

"Prognosis" Ordinary cases somewhat not connected, with other affections, is only dangerous when it occurs in the young, aged and the feeble. The danger to these patients is from the accumulations of mucous and the inability of the patient, too feeble either from cough or age to expectorate.

Ordinarily it passes through its course and recovery is complete, or it may terminate in a chronic case, It often gives the patient much trouble and causes some debility, but as a rule it terminates favorably

The treatment of bronchitis varies, according to the age and condition of the patient, as well as in the different stages of the disease. The abortive treatment of cold in the in the chest, may sometimes be effected by the patient taking at bed time, hot punch lemonade or cloves powders with a warm foot bath. Should this fail a saline purge — as often as of use and when the cough is tight with sore chest & high fever expectorants and demulcent drinks are useful. When the disease is established it has not claim very active treatment as with good hygienic regulations

it mostly tends to recovery.
Bloodletting is very seldomly used except
in cases of plethoric persons or
where the sympathetic febrile
movement is very high. Depletion
by laxatives and reduced diet is
sufficient, though in the majority
of cases the patient should have
nourishing diet, and the powers
of life kept as near the normal
standard as possible by stimulants
if they are required. In severe
attacks the patient must be confined
to bed to secure uniform warmth
and moisture of the surface,
diaphoresis allows the inflammed

membrane, and should be promoted by small doses of antimony or ipecac, these remedies must not be continued after the first stage, that is prior to free expectoration, a moist atmosphere in the apartment gives much relief to the patient by its soothing effects on the affected mucous membrane. Moderate expiration makes the patient more comfortable, but in fact severe and copious perspiration, is very disagreeable, and should be prevented by a few drops of aromatic sulphuric acid given "ad libitum"

Opium by many is supposed to be contraindicated in the first stage by interfering with the free secretion of mucous and further by rendering expectoration difficult. This inference is drawn from the effects of this drug in health, but on the contrary in disease these effects are not the result of its use, in fact it tends to hasten the second stage.

Hence we conclude that opium is indicated in the ~~[illegible]~~ of bronchitis, as it is in most acute inflammations.

When the cough is very frequent,

more so than is required to move the morbid product from the affected parts; then is opium indicated to controle the cough During the acute stage of soreness and pain in the chest be prominent local applications are found to be of much service, Sinapisms and stimulating liniments are useful and sometimes blisters act most favorably; If the affection lingers and tends to become chronic, the sulphate of Zinc and other tonic astringents and counter irritants with

good diet, are the most efficient
measures for recovery. The chlorate
of potassa has been found useful
in bronchitis. Turpentine stuppes
with warm hop poultices
are of the greatest benefit —
Here now I close this imperfect
essay, and respectfully submit
the same to the inspection of
the honoured and estimable
Faculty of our cherished
Alma Mater.

C M Giddings

An Inaugural Dissertation
On
Opium
Submitted to the Examination
Of the
Provost Regent & Faculty of Physic
Of the
University of Maryland
For the
Degree of
Doctor of Medicine
By
J. T. Price
Of
Maryland

1868.

Conscious
al one of the magnitude
of my subject; the necessarily
limited nature of this
essay, and my own deficien
cies. I confess gentlemen.
I approach my work with
humility.
Men of profound learning,
varied experience, [illegible]
[illegible] have [illegible]
[illegible] a [illegible], [illegible]
volumes devoted to the

[illegible] and
deleterious properties of
Opium.
After all, the subject resolves
itself into strange simi-
larity, and whether I
pour over Dioscorides or
eliminate my imagina-
tion with the dreamy exist-
ences of a Quincey, I am
forced to rate opium as
the most important drug
treated of in Materia Medica.
[illegible] has been, was, and
[illegible] [illegible]
all ages of which we have

record and in all countries.
though it was ~~xxxxxx~~ xx
reserved for modern times
[illegible] the [illegible]
[illegible], thus by abstracting
this concrete crude mass the
[illegible] of [illegible] in [illegible]
[illegible].
From the juice of the white
Poppy, a plant of the [illegible]
[illegible] from [illegible]
ed in the following
[illegible]. (It is a fact [illegible]
of note that ~~xxxx~~ [illegible]
[illegible]
manner of collecting

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

of the common garden poppy,

[illegible]

the gaudy corona rests upon

an unsightly capsule of which

it forms as it were a crown.

In the [illegible]

for the [illegible] the [illegible]

full [illegible], which [illegible]

has nearly reached me

[illegible]

[illegible]

Finally under the milky [illegible] is to [illegible] sick, soothe the divine or curse a nation as may be the case. In the course of time, the juice concrets in a brownish mass, is scraped off and rolled into [illegible]. The wounded capsule [illegible] [illegible] [illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible] Opium

[illegible]

should be used for the

fact in regulating the

quantity administered.

Opium is, in its chemical

[illegible], [illegible] com-

plex though it [illegible]

in pharmaceuticals to is

latin [illegible] [illegible]

[illegible] [illegible]

from the mass, which

contained the sublimate

[illegible] though some amount

[illegible]

each constituent is some
[illegible] produced by this mighty
agent. [illegible]
[illegible] a compound, succes-
fully analysed and resol
[illegible] the following
[illegible] ingredients—of which
the first [illegible] are [illegible]
[illegible] the remainder amor
[illegible] "Morphia", "Codeia",
"Narcotine", "Narceine", "Meco-
nic acid", "Resin", "Extractive",
"Meconic", "Lactic", "Acetic",
"Sulphuric", "Hydrochloric" and

"Narcotine".

"Narcotine"

the greater bitterness of opium is attained by narcotine which in the process of separating morphia from its constituents in the opium mass.

To this ingredient indeed opium owes its medicinal virtues and with meconic acid [illegible] it [illegible] can [illegible].

The quantity of pure morphia [illegible] in the best opium, is from

6.28 to 7.80 per cent.

This per cent is found in Turkey Opium, though a [illegible] variety, grown in Germany. [illegible] ingredients [illegible]

[illegible]

brought,

opium,

United States, reaches the
enormous figure
thousand [illegible]
[illegible]
[illegible]
[

the propriety of its administration, deduced from its [illegible]

have never found [illegible] sufficient [illegible] a [illegible] principle from which it [illegible] really necessary to deviate in many instances.

If say that [illegible] is equivalent, yet not for this but for its [illegible].

[illegible]

[illegible] [illegible] [illegible]
[illegible] it is [illegible] with
[illegible]

The general [illegible],
however, may be layed down
with [illegible] [illegible] [illegible]
down in a [illegible] for [illegible]
the brain. [illegible]
[illegible],

[illegible],

[illegible] [illegible] small [illegible] [illegible]
[illegible] [illegible] [illegible] [illegible]

[illegible]

In cases of an inflammatory character, where Colchicum has been successfully employed, such as Inflammatory rheumatism, steps are first taken to allay inflammation or this drug is combined with others calculated to produce that effect.

Again, narcotics from the peculiarity in a more eminent degree than any other remedy of the Pharmacopœia, repetition issues their action upon the system, so that each repetition

of the administered opium
additional quantity to main
tain the proper in result.

In catarrhal affections where
it is necessary to lessen the
mucus secretion the administra
tion of opium is justifiable.
Where the secretory organs are
languid, opium would pro
a tendency to diminish
the bronchial secretion and
retard expectoration.

In instance of bron
ing fully the effect of opium
upon the various secretory or
gans cannot be overestimated.

The testimony of men of experience, furnish us with the following data. It diminishes the secretion of Gastric and Pancreatic juices, the mucus of the bowels the bronchia and nose, and the secretion of urine. On the other hand, it increases the serous secretions.

Further, its sedative or secondary qualities recommend it in all cases to allay pain or nervous irritability unaltered by inflammation in the affected parts.

The disease can be success-

fully treated, no remedy properly applied, unless we penetrate the cause of the one, fully weigh the universal effects of the other.

For instance, what had a deep insight into causes and a full knowledge of their properties would ever suggest it as a remedy for constipation? Taken in health, it is a powerful astringent, although during a low state of constitution or sensibility of the bowels, but as a gentle purgative, the reverse, in some constitutions of mind and body so that, a suspect

almost above the surface of the higher range in the interior of tropic lands, which attributes to this drug, because inhibition and a sentient action.

As to the manner in which opium is administered, it may state, that in case where immediate action is desirable, the tincture should be given.

Some persons cannot take pure opium — to meet such contingencies, various compounds have been formed, however, each of peculiar merits, opium

plicable in peculiar circumstances. For a proper knowledge of the case of which, we must rely upon our own judgment.

External applications or embrocations, are good in allaying local distress, when it is not so much a night from inflicions. It may also be given in enema.

I will briefly enumerate the main diseases in the treatment of which, opium has been successfully employed.

1. is applicable in all febrile diseases, when any of the vital organs are in a state of morbid

[illegible] or [illegible] or often
led by inflammation of [illegible]
[illegible] of [illegible] and
in combination with [illegible]
[illegible] are [illegible]
[illegible] a secondary, [illegible]
is often of great [illegible], [illegible]
combined with a diaphoretic,
[illegible] in the [illegible]
[illegible] of inflammation [illegible],
[illegible] while [illegible] the inflammation
is [illegible], [illegible] is [illegible]
[illegible] left. In the [illegible]
[illegible], [illegible] a [illegible]
[illegible], in [illegible] the [illegible]
[illegible] [illegible] [illegible] [illegible]

chronic catarrhal affections, nor in acute affections of the air-passages inflammation has been successfully subdued, tissues may be injured.

In advanced stages of phthisis, it is almost the only hæmostatic employed. In the treatment of small pox, it is often of decided benefit. When the eruption disappears, pleuritic pleuritic is to occur. In the treatment of typhus fever, it is most indispensable. Sleep not the first medicine of value.

employed in Cholera, yet it seems very probable that active irritation, should be given in large doses.

Opium, owing to its tendency to affect the brain, cannot be employed with impunity in "Cholera infantum". Therefore being more or less affected by the disease in Infants, it produces bad special results; its action is, to increase the specific gravity of the urine. An eminent Physician claims to have cured his out of 18 extreme cases of this, to be the result of [illegible] fictitious, [illegible] parts, [illegible]

in fact in all cases where the nerve must be sustained, soothed and relaxed, this is a powerful auxiliary.

Pain modifies the narcotic effect of Opium on the system. Doses which taken in health would completely paralyze or even annihilate the vital functions, are given in acute pain without injury; as unerring as the arrow from an experienced hand, it penetrates to the disease, mitigates the agony and is sleep refreshed & the death dealing foe is in struggle.

We regard opium, then, as an agent possessing these four powers. We have already ~~[illegible]~~ viewed it as a palliative, then as a curative, and lastly it remains to consider it as a destructive agent.

In the early part of this essay, I remarked that "Opium given in large quantities is a narcotic poison acting on the brain." In such cases, death is instantaneous. Thus it is in a very small minority of cases that Opium thus says its victims! Nor is it idiosyncrasy, it seems, that is not unusually for years, in the

unhappy victim succumbs, says a
old writer "God seems to aid
a man in getting out of some difficulty but opium makes you have to claw your way out over red hot coals on your hands and knees and drag yourself by sheer strength through the burning dungeon bars"

The use of opium as a narcotic destroys the sensitive nerves of the stomach.

The first months of the habitual use has known an opium eater around in stupefaction and misery, the victim is not a man

view of our mind thru him.

The first suffering comes from a sense of this intellectual bondage and in the effort to throw it off the sufferer first discovers the physical hold it has upon him. The average quinnamaker will attain to as high as 12 grains of morphia per day, in ten years. In such cases, the stomach undergoes complete disorganization, death now comes from its disorganization, applied to him. He has, if he has reached the stage above mentioned, to abandon or pass

[illegible]

the habit is equally fatal, only in the first case, the victim dies in inconceivable torture.

The Opium eater dies either in collapse through nervous exhaustion or in the midst of physical or mental agony with a colliquative diarrhoea.

In either case, the end of the Opium eater is most horrible.

Antidote in poisoning by Opium

if seen at first evacuate the stomach either by the stomach pump or by a powerful emetic such as zinc or copper if these are not at hand we may

use mustard warm water. Keep
hot poultices are used; and supporting
the system in it by giving
use diffusible stimulants. Belladon
na has been recommended from its
sometimes acting upon the pupil of
the eye and its tendency to cause
wakefulness.

Yf

AN

Inaugural Dissertation

ON

Epilepsy

Submitted to the Examination

OF THE

Provost, Regents and Faculty

OF

PHYSIC,

OF THE

UNIVERSITY OF MARYLAND,

FOR THE DEGREE OF

DOCTOR OF MEDICINE,

By

James H. Stokes

of

Frederick, Maryland.

Session of 1867 & 68.

Epilepsy —

that is known of the

Epilepsy can from

it scourges to which man

complicated thorac

the nervous sy

the pulmo-

[illegible] to doubt the [illegible]
the disease; and
[illegible] the [illegible]
[illegible] precise state
[illegible] determines the [illegible]
[illegible]
[illegible]
[illegible] the arterial and
[illegible] head; a temporary
[illegible] somehow arising
[illegible] of blood
[illegible]

[illegible]

[illegible] paroxysms." [illegible]

[illegible] case may [illegible]

[illegible]

It has so [illegible]

several dis[illegible]

[illegible] it can [illegible]

observation be [illegible]

founded. Of the [illegible]

uræmia and inpu[illegible]

xd are the

u.s.

The disease

age nor sex

th alike. On

e going along

ensured st

ddenly ne

in violent conv

Again from

[illegible]

[illegible]

[illegible]

conscious.

A

horse. They usually
fall forward thereby dis

[illegible]

[illegible] as it

to [illegible], during

The [illegible]

[illegible] and [illegible]

[illegible]. Sometimes they [illegible]

[illegible] and again

the [illegible] is fixated

[illegible] and the tetanic [illegible]

lasts to one hour.

During the spasm the

his teeth,

[illegible]

[illegible] frequently during the attack

the [illegible] by the sudden closure of

[illegible] jaws

and [illegible] floor [illegible]

the [illegible]

unless they are overpressed,
[illegible] attacks there may
[illegible] one, [illegible]
[illegible]
There is [illegible] find the
for the [illegible], and the
incidence of the disease
[illegible]
[illegible] of [illegible]
nocturnal attacks are be-
lieved by some to be [illegible]
[illegible]. [illegible]
[illegible] in cases of [illegible]
[illegible] to [illegible]

[illegible]

[illegible]

[illegible]

themselves

found which the

and that characte
by the Aro.
the ground meal. The po

leptic vertigo, and the Aro

cases. sometimes re
shows a slight attacki

the incisions
the patient
ly of the milder form

consciou

cipital, Cytowski
that in the list
ms free

are strong predispositions.

With respect to the causes of phthisis, we little know where predisposition ends and where suffocation begins. The most prominent are strong mental emotions, the abuse of spirituous liquors, the too frequent gratification of sexual desires, and more especially that great and, in the habitations, those are the predisposing causes. Such as fractures of bone, gunshot wounds, or a severe inflammation of the

the presence of foreign substances as the accidental entrance of a foreign body into the eye. There is a great diversity of opinion among the profession respecting the causes of blindness which [illegible] of its being incurable.

[illegible] that when a family is afflicted with the complaint it may be [illegible] for it but there will be [illegible] of [illegible] tainted [illegible].

However I will go on to the diagnosis of the disease. Epilepsy may be confounded very easily with several other nervous disorders as hysteria & apoplexy, but more especially the former. Indeed it requires very great care & the strictest attention to diagnose the one from the other. There are however certain unmistakable symptoms which will always enable one to recognize instantly the disease. As I have

said hysteria is frequently taken for epilepsy but we can sometimes discriminate between them from the statements of the patient's friends. For instance in epilepsy there are no alternate fits of sobbing or laughing, no gradual development of the paroxysm, no globus hystericus, a feeling as of a ball rising gradually from the stomach to the throat symptoms unknown in fits of hysteria. Whereas, on the other hand, we have in epilepsy great distortion

of the face, dilitation of the pupils, frequent twending of the tongue, opening of the mouth and a heavy comatose sleep succeeding. Epilepsy attacks both sexes alike, whereas hysteria predominates in females. All these are sufficient to enable us to distinguish between the two. There is much diversity of opinion with respect to the convulsions of young children being epileptic in their character. Now whether or not it is so: is undetermined

but almost every physician entertains the hope of their being cured, which I believe is in many instances the case. It has been for many years the practice of legislators and others to [illegible] disease and it is of the greatest service to be able to detect their character. In hospitals we see frequently instances of this kind, where the trick has been resorted to merely to get admittance. In the prisons, very, it is of the utmost importance to be able to detect them.

It is often met with among the mendicants being resorted to in order to excite sympathy, thereby living in more lucrative trade. It is easily detected from the true disease, and by simple means. When it is feigned there is no sign of sensibility although great pain is undergone, for it yield no dilitation of the pupils nor biting of the tongue. They never would attack in dangerous places and always when they will be noticed.

The most efficient means of bringing them to their senses is to speak with their loving, if severe, application and a hot water douche, and such like remedies.

As to the prognosis of epileptic fits is to be said. There is scarcely any immediate danger to be anticipated. It seldom happens that a person dies from the effects of the malady. Nevertheless the prognosis rather unfavourable is respected

fever, and especially if it arises from the causes. But it is to be feared that when it proceeds from circumscribed local causes, as the presence of a calculus or some foreign substance, that the cure of the same will carry with them the disorder. The circumstance most to be dreaded is the inflammation of the brain. When the attacks are frequent there is more or less derangement of the brain, and if the patient persists there succeeds mental imbecility.

When the malady occurred to patients between and young girls approaching the period of puberty, it seldom or never continued longer than such period. Also the same of children, being of a strong epileptoid character rarely ever continue longer than the period of dentition.

There is no hope of a permanent cure in cases of long standing especially if there is any reason to believe that it was inherited. Persons subject to epileptic fits are more or

[illegible] delicate, and so it tends to ruin mind and body.

Finally I have to speak of the treatment. Here I do not attempt to enumerate the different conditions or different authorities. The disease itself would consume a great deal of time. I cannot [illegible] to which [illegible] and [illegible] cases which so many [illegible] have been made to cure as epilepsy. It seems as if the whole vocabulary of medicine had been exhausted and

still there is room for improvement. There may be in every case, remedies palliative to a certain extent; but there are very few which bring about a permanent cure. The patient may be relieved for weeks months or even years; but its return is almost certain.

The treatment may be resolved into two kinds namely, that which is specific and the means to be resorted to in the general. But if the form is simple and consists

[illegible] keeping the fa=
[illegible] from [illegible]
[illegible] holding him, and p.- the
[illegible]
[illegible]
[illegible] from being [illegible]
His hands shall be tied
[illegible] and prong
part of his coming upon
[illegible] restraints him
should be removed.
[illegible] to obtain
the good the [illegible]
the [illegible] and tangled
with [illegible] is said to

[illegible] of [illegible]. These [illegible]
[illegible] many [illegible] the [illegible]
[illegible] some of which are
[illegible] beneficial. There is
[illegible] little [illegible]
to be done during the
paroxysm.

As to the curative
treatment, much more
can be said. In the first
month of the intermittent days
Dr Hird, there are two
prominent indications
which must first be met
[illegible] if possible
[illegible] of irritation to the
[illegible] [illegible]

that room is sensitive to morbid influences, rather than to resist them. In order to do this the person should inure himself to the sight of the patient, the sick room, and indeed to practice of phrase. If this could be very simple, the principal practitioner of course of the details and practice would be adviser. It has been recommended to deflate the patient under such circumstances.

but the practice is almost prohibitive.

Should we, on the other hand, be unwilling to exercise caution should we fail to improve the unfavorable condition of the blood, the simple, wholesome, nutritious diet, moderate exercise &c, also nothing is recommended.

Exercise calculated to produce intoxicement should be carefully withheld, and if the patient be of a calling requiring great tension of the mind,

he should be [illegible] it up. All disorders in whatever part of the body existing, should be carefully attended to.

The conditions of the treatment is to render the patient less excitable. Narcotics are undoubtedly the best class of medicines to quiet excitement and are necessary to be immediately administered. The system should be strengthened by tonics. Of these the [illegible] tonics seem to be the

most efficacious. The ni=
trate of silver has long
enjoyed a great reputation
in this disease but it has
gone into disuse because of
its producing a discolor=
ation of the skin. It must
therefore be seldom used
as there are cases on record
of persons becoming black=
ened for life. The dose
is 1 gr to 3 or 4 grs 3 times
a day, in form of pills.
Minerals tonics, as the prep=
arations of copper, zinc
iron, &c are much lauded
and praised with reason.

Another remedy sometimes employed is arsenic, but which is hardly advisable since it requires to be exhibited so carefully. Also the preparations of iron have been sometimes used.

Of the nervous stimulants, valerian, asafoetida, musk & camphor have enjoyed equal reputations. There are others also but the above seem to have acted more beneficially.

Belladonna is thought to be very useful by some authorities. I saw a case of epilepsy treated with belladonna with very happy results. The dose was 1/4 gr three times a day.

Stramonium is thought by some to

be of service but there is but little reliance to be placed upon it. The bromide of potassium has lately come into notice as a palliative is said to be very prompt

With these few remarks I submit to you my Thesis, hoping that its many imperfections may be overlooked & that it may receive a favorable solution at your hands.

Very respectfully
Yours.
Jas. N. Hoke

35.

AN

Inaugural Dissertation

ON

Food

Submitted to the Examination

OF THE

Provost, Regents and Faculty

OF

PHYSIC,

OF THE

UNIVERSITY OF MARYLAND,

FOR THE DEGREE OF

DOCTOR OF MEDICINE,

By

Gilbert C. Greenway

of

Abingdon Virginia

Session of 1868

Food —

J. C. Greenway

Food

By food we mean those substances, which being taken into the mouth, and carried from thence through the alimentary tract, are appropriated by the system for its own nourishment and repair. Whatever then nourishes the system is food, and is always found in the organism as a constant or integral element, either forming a part

of its structure, or one of the conditions of a vital process. If this definition be correct, and we presume it is) both organic and inorganic substances, being nourishing, are food. Food is an excitant to every living animal; & Lewes describes it as the motive power of every human action underlying the noblest impulses, as well as the brute instinct

Dr Draper describes the geometrical spider constructing a net or web and awaiting its food, the ant bear as digging a pit in the sand, and the lions and tiger as hunting down, or lying in wait to spring unawares upon their prey; thus making some animals rely upon labor, some upon force, and some upon fraud for their supply of food. Man depends upon all. It is a

humiliating, confession that godlike mind, that characterizes man from the lower animals, that thinking principle, that is able to soar the heights and depths of the scientific, philosophical and imaginative world, is so intimately associated with the corporeal, as to be under its control; yet such is the mysterious connection between mind and matter that the former is depen

dent upon the Caller for its existence. The starved body will so degenerate the mind, that losing its noble and humane qualities, it exhibits only brute instincts! This is noticeable not only in cases of extreme exhaustion of body from the want of nutriment, and from other causes, but also in the intermediate stages. — The Ancients tell us that "Mens sana in sano corpore". we

might apply this here for all the light of modern science illuminate this truth — apparent exceptions may appear of giant minds in weak or feebled bodies, but no one, we presume, will ascribe this mental greatness to the bodily feebleness; but rather believe the mind great in spite of the bodily condition, but yet weaker than the same mind under more favorable bodily influ-

ance. In the Physiological world, as in the Natural, the condition of life is death, we have waste and repair constantly going on. Each anatomical element in the body demands food to supply the waste occasioned by its activity, Each motion of a muscle, or forming of a thought within the brain. to do this we must introduce substances from without, which by an organic apparatus admirably adapted

for its ends and purposes, known as the "Digestive Apparatus", are rendered soluble; these substances in solution are placed in the vehicle. that is to transport them to where they are needed; the vehicle is the blood; the transformation of these materials into tissue is known as assimilation. Into the composition of this nutritive fluid all the substances enter. the Inorganic. the Hydrocarbons, and

Nitrogenized substances. and all contribute to form tissue: the classification of Leibig who divided these into the Nitrogenous and Non Nitrogenous, and asserting that only the Nitrogenous were capable of being converted into blood, whilst the others were Respiratory, does not prove correct: the processes of Physiology of modern times is based not upon theory, chemical or otherwise; but upon observation; and

this prevents us from accepting the theory; the Experiments of Dr Edward Smith, recently promulgated, go to prove exactly the reverse and his classification is into Excito Respiratory and Non Excito Respiratory the former being the Nitrogenized Substances. The theory of Liebig may be true to the Chemist, but the Physiologist reckons every Substance found in Normal blood as a constituent of it

and he can not give undue value to any class, where all are indispensible. All these substances are held in solution in the plasma, which with the Corpuscles added, form the blood. The Corpuscles are biconcave spheroidal discs of homogeneous structure, (not nucleated in man as in the inferior animals as birds, fish and reptiles) and they form about fifty per cent of the entire blood, and are held in

suspension by the plasma.
Physiologists differ as to their origin, some with Virchow, Robin and Dalton at their head, contend that they are produced in the blood by fission (what this means is not very clear); others with Lionel Beale and Draper, that they are formed from the White Corpuscle (which their opponents declare to be the degenerated Red) — but be their source what it may it is universally agreed among them

that its office is to convey Oxygen to the tissues. it performs this function equally well be it derived from either source; this Oxygen is first taken up by the plasma and then transferred to the Corpuscles. where it is held in a loose state of suspension so as to be readily given off. The food, being placed in the mouth is carried through the Oesophagus to the stomach, acted upon by the gastric juice the greater part is digested and absorbed by the capillary absorbents

in the walls of the Stomach; the remainder passes through to be acted upon by the intestinal juices and is taken up by the capillary absorbents of the Small intestines; those capillaries convey it to the veins, the Gastric, Splenic, Superior & Inferior Mesenteric, which unite to form the Portal vein, conduct it to the Liver — after circulating through this organ it is conveyed by the Hepatic vein to the Ascending Vena Cava to the right Auricle of the heart

Other substances of the food are absorbed by the Lacteals or Lymphatics in the small intestines and are conveyed by the Thoracic Duct to the left subclavian vein, thence through left innominate vein into the Descending Vena Cava by which they are also carried to the right side of the heart — here then in the right side of the heart we have all these substances mingled whatever modifications they may

have undergone "En route". So intimately connected are all the processes of Physiology that in order to understand thoroughly and describe properly the one, we must also take into consideration the others; they are so blended that we must consider them correlative, — thus to point out how food nourishes the system by and through the capillaries, we must describe its manner of entrance into the blood, and then point out how the blood containing this

food is carried to the capillaries = in order to describe Nutrition we must consider Digestion, then Circulation which involves Respiration, they are all so related. We have described, as far as our purpose demands, Digestion, and we left then digested materials, carried by the veins and by the Thoracic Duct, mingled together in the right side of the heart: but there is more in the blood here than we have yet considered; there is Carbonic Acid gas, which the blood

has taken from the tissues as effete matter occasioned by waste, and has supplied its place with Oxygen. this must be eliminated which is done in this manner. the heart contracts upon its contents and forces the blood into the Pulmonary Artery, which proceeding to the lungs ramifies into minute branches over its whole surface, forming a net work in order to expose a greater quantity to the influence of Atmospheric Air which is brought into the air cells of the lungs by Inspiration. this

this thin membrane the blood gives off its Carbonic Acid which is immediately Expelled by Expiration, and receives the Oxygen which returns with Inspiration, the Red Corpuscles seizes with avidity upon this Oxygen, changes to a bright red, passes into the Pulmonary veins to be conveyed to the left side of the heart — in the left side of the heart then we have the blood that is to nourish the system, to supply the waste and build up the tissues; it is still distant from its

field of operation, but by a forcible contraction of the heart it is sent through the Aorta to be distributed by the arterial system to the various portions of the body — a glad gushing stream that leaps along as if conscious of its errand of mercy to the needy, sinking organism; the Aorta as if in sympathy gives it a "God speed you": it is in the capillaries that it is needed, the famine is there — to the capillaries then its goes; here it moves more slowly — The

enthusiastic rapidity of about one foot per minute with which it started has sobered down until now it moves only about one inch per minute, but the work is none the less earnest as it eddies round through the capillary vessels each tissue is apportioned off its modicum of food, and is relieved of its effete material; this is done not by bringing each anatomical element into direct contact with the blood, but through a thin, porous, homogeneous membrane (as is the air in the lungs)

of the thickness of from 1/12500 to 1/25000 part of an inch — its purpose being, effected its returns bearing away with it the waste — going through the venous radicals into the veins it is conveyed back to the right side of the heart: it meets on its way with fresh supplies of nutriment takes them up is carried through the lungs gives up its Carbonic Acid, becomes Oxygenated returns to the left side of the heart — and starts again upon its missionary tour. We might take into consideration

the wonderful manner in which all these apparatus are constructed. Their beautiful adaptability of means to an End, Each apparatus or even part of an apparatus forming a study that Excites our admiration and our wonder, and pointing out undeniably a Supreme Architect, but when we consider them all our wonder and our admiration increase, that so many complex apparatus should work so harmoniously together: we think with Watts

"Strange that a harp with thousand strings
Should keep in tune so long

but this is not here demanded.

I have seen somewhere a beautiful illustration of the manner in which the body is nourished. — the body is compared to a city intersected with a vast net work of canals (as Venice or Amsterdam) these canals are laden with barges, which carry to each house the meat vegetables and groceries needed for daily use; and while the food is thus presented at each main door, the canal receives the drainage of all the houses. One house will take that food

which it needs probably meat, another only vegetables &c &c: in like manner from the blood does one portion of the body, as the muscles, demand one sort of nutriment — the nerves an other — the bones a third, and so on — allowing those substances it does not need to pass to their neighbors, with whom (in a state of health) they are on very good terms. An astonishingly vast quantity of nutritive material is carried by the blood in the course of one year, being not less

than 1/2 Jour — and the same amount is eliminated. It carries gases, salts, metals, fatty matters &c — when the system appropriates more than its wastes, Plethora supervenes; when it has less furnished and appropriated than is required, we have Emaciation. This would lead us to consider that very important subject to the Medical Practitioner, viz Alimentation in disease, until within a very recent period, much misapprehension has existed on this point and the suffering, patient, weak from

impaired nutrition has been bled and starved, when alimentation to form nutritive, normal blood was needed, until by a course of persistent depletion the vexed and harassed vitality has fled. The results of withholding food which is to form the blood, and the actual withdrawal of blood from the body, are the same so far as the organism is concerned. I do not wish to paint as a "Sanguinary Villain" Every practitioner who draws blood under any circumstances

but there are, even nowadays, numbers who holding to the traditions of the past advocate the use of the lancet with a rush. The latest views founded upon sound scientific physiological principles forbid so using the lancet unless for hydraulic physical purposes; these same sound doctrines imperatively command us to replace the sloppy mixtures formerly administered to the sick, by nutritive sustenance: when this practice was commenced many men

the Sweat, the ominous shaking of the head, & the prognostications of evil to result, causing the practitioner of the new School to feel the "woe" that "betides the hand that plucks the beard of hoary-headed error"; but so manifest were the good results that its obtained, and suffering humanity has cause to congratulate itself that it has.

The avowed maxim of the medical man" to assist Nature" is best accomplished by rendering Nature

able to assist herself, and oft times in diseases Nature sustained is able to eliminate the noxious hurtful influence, the much reverenced "Vis Medicatrix Naturae" is only the ideal expression of the perfection of the eliminating organs.
Of course I do not mean to offer to the already nauseated Stomach those substances which it is easy to reject, but I mean by the repeated administration of small quantities of nutritive and palatable

food to support the vital strength that is tried so hardly in this strife with disease. And what those substances are that are particularly demanded, may often be arrived at by consulting the patient's taste, for it is with this as Goethe says of the impulse. "I do not readily blame any harmless impulse which the kind mother nature has given to man; for often the end which the understanding, and reason are unable to arrive at, is attained

by a happy instinct or inclination irresistably leading us". We define hunger to be a systemic want with a local declaration in the stomach may not the system tell us by the appetite not only that we have need of food, but also what sort of food we need; this though with caution as disease may induce depraved appetite.

The profession throughout Christendom is now learning to appreciate the importance of food in the treatment

of disease; to the science in medicine it is a matter of surprise and astonishment, that so common sense, so plain a truth should ever have been overlooked by the bright intelligences that have adorned our profession; and the new light that has dawned upon us, and has so benefitted the world, is reflected in characters of living light from the gravestone of a Graves, of Cadiz

"He fed sheep".

AN

Inaugural Dissertation

ON

The Differential Diagnosis of Typhus and Typhoid Fever.

Submitted to the Examination

OF THE

Provost, Regents and Faculty

OF

PHYSIC,

OF THE

UNIVERSITY OF MARYLAND,

FOR THE DEGREE OF

DOCTOR OF MEDICINE,

By

James Bordley, Jr.

of

Queen Anne's County, Maryland

Session of 1867 & 1868.

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The Differential Diagnosis of Typhus and Typhoid Fevers.

Correct diagnosis is the foundation of all accurate knowledge in the successful treatment of disease. By it alone medical science has made such rapid advancement, and has been enabled to illuminate and remove the hitherto darkened path of therapeutics.

Physiology and pathology have opened new roads through

the dense morasses of ignorance which, up to a short time past, stood as immovable obstacles in the pathway of progressive medical literature.

Theory after theory has been advanced, speculations have been indulged in, and experiments have tried — theories have been exploded, speculations have found an ethereal ending and experiments have proven the fallacy of the principles which prompted them nevertheless, they have not been altogether in vain, for the great and noble minds and indefatigable em-

ergies of the profession have sun grains of genuine gold in all the dross and glitter and have found bright gems amidst these gloomy dark surroundings, which, being linked and welded together have at last begun a chain of more than mere hypotheses.

The term diagnosis implies "the discrimination of a disease by means of distinctive marks or characteristics," that is, the art of fixing the nature and seat of a disease by known symptoms and signs.

It is sufficiently obvious

to all that without the proper discrimination of disease, accurate therapeutics, or curative, knowledge is impossible.

Diagnosis and treatment are, in fact, the two practical ends of the study of medicine. The clinical history of disease is in a great measure dependent upon it, and diseases which have heretofore been confounded are now clearly and readily distinguished.

The eruptive fevers were once regarded as only different varieties of the same disease; and, still more recently,

Typhus and Typhoid have been confounded, and, by some are still looked upon as the same.

Difference in skill and tact among practitioners of medicine relates especially to diagnosis. In medical consultations it is chiefly due to this that differences of opinion arise.

In discriminating a disease from one of several with which it has more or less symptomatic phenomena in common, the consent of practitioners cannot be had if its patterns is to be considered as well as the ex-

dence against the existence of the disease or diseases, from which it is to be discriminated.

This comparison of our disease with others, with reference to the positive and negative evidence of its existence, constitutes what is called "differential diagnosis." Thus Typhus and Typhoid fevers have many symptoms in common, but differ from each other in essential points — the most important of which I shall now proceed to enumerate. For want of time and space I will have to omit those

which are not of the greatest moment, and from lack of experience. I can only give them a general and cursory glance as deduced from the writings of our best authors, necessarily I will dwell only on such as form the true basis of the differential diagnosis.

It is not my intention to discuss the etiology and pathology of fever, it must suffice for the present to say that no positive or accurate knowledge of its cause or pathology has yet been deducible; and it

remains for future investigation and research to elucidate a subject which will add another link to the grand chain of medical literature, and render immortal the name of him who shall be first to give to an anxious world the long sought for truth. —

The name "Typhoid" signifies "Typhus-like". Some have suggested that it should be called "enteric fever," maintaining that this name better conveys the true character and seat of the disease.

The uniform characters of Typhoid fever are highly interesting

and important consisting of certain special lesions seated in the "Peyerian", or agminated, and solitary glands of the small intestines and in the mesenteric glands.

The first ascertained step in a series of changes occurring in the patches of "Peyer" and solitary glands is enlargement, due to the deposit of a morbid product known as typhous material.

The deposit first occurs in the patches nearest the caecum and successively in those situated above.

I. [illegible]

to provide the deposit but [illegible]

has not been definitely proven. The patches are usually insensible to the touch, they are sometimes smooth, and sometimes present an irregular granulated aspect. Sloughing away of the deposit in the glandular follicles and mucous membrane is the next step. In consequence of the sloughing ulceration ensues. The Peyerian patches after sloughing is completed, are the seat of ulcers.

The occurrence successively of ulceration in the patches from below upwards is one of the distinctive features of the disease

Cicatrization is the last step in the series of phenomena.

Perforation of the intestine is liable to occur in one or more of the patches, followed by symptoms of acute peritonitis being occasioned by the escape of the intestinal contents into the peritoneal sac.

The solitary glands are also subject to the same changes that have been described as taking place in the "Peyerian" patches; more or less enlargement of the mesenteric glands is always associated with the intestinal lesions, especially upon the same aspect of the bowel.

present in the enlargement of the Peyerian and solitary glands.

The foregoing lesions are peculiar to Typhoid fever; in greater or less degree they are always present and they occur in no other disease; they are characteristic of Typhoid fever as the eruption of small pox is characteristic of that disease. They do not constitute the disease more than the eruption constitutes small pox but they contain to the disease a definite pathological relation the nature of which is unknown.

As regards the nervous system

more or less cerebral congestion is not uncommon together with serous effusion in the arachnoid cavity, lateral ventricles and sub arachnoid space. These latter lesions are found also in Typhus fever but much less frequently than in Typhoid. It seems to me that the predilection of the latter disease already pointed out as of themselves sufficient to prove the non identity of the two fevers. Though it is still held by some that the same lesions are present in both.

I. J. Joseph Fell Physician to the Glasgow Royal Infirmary.

"Taking into consideration the results of my own observations on fever, I am forced to the conclusion that disease of the mucous membrane of the small intestine constitutes the anatomical lesion in Typhus as well as in Typhoid fever; consequently the two diseases are identical in their essential pathological lesion."

But Dr. Bell has the combined observations of so many, and equally great minds opposed to him that we are forced to think him in error, although he quotes from men of high standing to

substantiate his theory.

The differences in the two diseases as pointed out by the best authorities are almost as numerous as the symptoms of each, and to go regularly through them, giving each a full description would consume more time and space than I could bestow upon the subject but giving them a careful thought, I trust, will suffice to prove their non-identity.

We find that they differ

1st. In the age of the patient they affect.

Typhoid is purely [illegible]

by age; young persons being chiefly liable to it, and those over fifty years of age are seldom affected by it. Typhus on the contrary attacks for the most part persons past the adult age though all are liable to it at any age. Typhoid does not appear before the fiftieth year.

2nd. In their modes of attack. Typhoid fever is a disease which sets gradually. In a large majority of cases the patients are unable to fix the precise date of their ailment, so imperceptible is the commencement of the

diseases.

Typhus, on the other hand, has a shorter period of incubation, the patient in a great majority of cases taking to the bed on the second or third day after the first manifestations of illness. The symptoms though during the development of the disease are essentially the same, with the important exception of the abdominal symptoms of Typhoid fever, diarrhoea, intestinal, rose rash and gurgling are generally wanting.

B. Sp. these characteristics.

The cause of Typhoid fever may

[illegible] that [illegible]
consequently the development is
gradual; while the duration of
Typhus is much shorter than that of
Typhoid [illegible]

4th. Eruption also differs in
many [illegible]

Typhoid eruption consists of isolated
papulæ, generally limited to the trunk
of a rose or pink color, they are
slightly elevated, (therefore perceptible
at meadow) their number is
usually small not exceeding twenty
in the majority of cases. They
disappear when pressed and then
appear. Typhus papulæ appear [illegible]

time to time taking the place of those of anterior date. they are usually found over the chest, and seem to be contagious. they make their first appearance between the seventh and fourteenth days reckoning from the beginning of the fever.

The characteristic eruption is in a larger proportion of cases on Typhus than in Typhoid fever.

It appears also earlier the average period, dating from the time of the patients taking to the bed, being somewhat under three days.

It is also more abundant, frequently being copious over the extremities, the

well as the trunk.

Other distinctive points are as follows. It is a maculated not a papular eruption, the spots become of a dull, dingy or dark red hue, and after the first few days the macules cannot be made to disappear by pressure, the spots are smaller than the typhoid eruption, they do not come and go like the others, but appear about the third day and remain through the disease. The copiousness of the eruption represents generally a corresponding grade of disease. This does not hold good with regards to the eruption of Typ

fever.

5th They differ also in the color of the skin, in the expression of the face and in the manner.

Typhus patients often present in the highest degree those distinctions termed expression and physiognomy by the old writers, the face is dark and usually flushed, the complexion muddy, the manner stupid and confused and the eyes unintelligent.

On the contrary, in Typhoid fever the complexion does not become muddy except in a very slight degree, consequently the flush

of the cheeks, when present, is bright and pinkish and not darkened, it is often circumscribed to the cheeks, and is then strongly contrasted with the surrounding pale skin. The manner is not altered, it may be a little dark, provided there be no delirium.

3. They differ in the severity and course of the head symptoms.

Headache is an almost constant symptom in both, yet in each it has a determinate duration. In Typhus it ceases usually on the tenth day, and always before the fourteenth; in Typhoid fever,

four or six days later and may last until nearly the end of the week. [illegible] in Typhus than in Typhoid [illegible] days. Convalescence although frequently absent in both, is more common in Typhus. Coma vigil occurs in some cases of Typhus but [illegible] Typhoid fever.

7th. A degree of loss of [illegible] [illegible]

Typhoid [illegible] days later [illegible] and are more completely developed at an earlier date than in Typhus cases.

8th In the frequency of [illegible]
which is rare in Typhus and com-
mon in Typhoid fever
9th In the condition of the
Urine [illegible] that is ma-
ca[illegible] in Typhoid the [illegible] in di-
lated and in Typhus it is con-
tracted
10th In the condition of the tongue.
In Typhus the tongue [illegible] fre-
quently becomes covered with a
black or brown coating, [illegible] less
frequently [illegible] a [illegible]
pressed, and is [illegible] [illegible]
protruded than in Typhoid [illegible]
11th In the chest symptoms

[illegible] of the depending part of the lungs, owing to hypostatic congestion, is common in Typhus and in Typhoid.

12th In the state of the [illegible]

The average frequency of the pulse is greater in Typhus than in Typhoid, more variable in the latter.

13th In the abdominal symptoms

Of these the abdominal symptoms are highly diagnostic of Typhoid fever, the two [illegible] present striking points of contrast, besides all that I have [illegible] in the hands of unprincipled persons who [illegible] diarrhoea is often absent.

Typhus and other fevers usually
except a few cases, slight; the stools
have not the ochre color of those
of Typhoid fever. Tympanites
often wanting, and when present is
generally slight in Typhus fever;
iliac tenderness is also less; intes-
tinal perforation never occurs in
Typhus, while hemorrhage from the
bowels is one of the rarest of events,
exclusive of cases in which dysentery
is a complication.

14th In the greater softness and fl
bness of the muscular structure of
the heart in Typhus than in
Typhoid fever

15th. The frequency of lobular and lobar pneumonia. Typhoid fever being often subject to such complications

16th. The frequency of ulcerated mucous membrane. These are often seen in Typhoid but only in Typhus fever.

17th. The greater frequency of pleurisy in Typhus

18th. These are the most remarkable causations go to show their identity.

Typhus is dependent on a poisoned state of the system. Typhoid [illegible]

phoid fever is indigenous to many
regions, where Typhus is very rarely
if ever generated. Typhus prevails
as an epidemic, but Typhoid is
usually an endemic disease."

19th In mortality.

Typhus is more fatal, especially
if complications, than Typhoid fever.

20th In the continuance of the infec-
tion after death.

The spots of Typhus last very
effaceably after death, whereas the
rose spots of Typhoid fever
cannot be found.

"In addition to the reasons
already given, there is some [illegible]

of different constitutions of the blood, but, as I have no exact data I pass them over.

Although many of the distinctions appear of little value in a practical point of view, there again are indications too mighty to be passed unnoticed by the most careless observer.

The among symptoms the absolute diversity of the eruptions, state of the skin, the difference in the duration of the disease in the matter of cost and the pronounced absence of symptoms of one with the absence of the

in the other are very marked. So also the fact that the entero-mesenteric disease of Typhoid contrast strongly with the absence of pronounced local changes in Typhus fever.

The fact that fever often or always goes with the disease, and to no other known agent, and in substituting the above baths, clearly when we can call in the highest authorities bear witness to the correctness of the assertion.

"That the differences between the two fevers do not depend

any variety of epidemic existing present in one year and not in another is proven by the length of time over which observations run."

To all this positive evidence is added the fact that Authors and Twigs who were so similar with power distinguished by forms then Armstrong & Cox have come to the fact, the correctness of the view is almost beyond the reach of controversy."

Then we found the different forms of fever the observations of authors of different [illegible] and [illegible] disappear [illegible] to [illegible]

publicity our light is not merely to hitherto obscure & imperfect outline. Through the cloud of obscurity & thinks we saw almost forever the day when even the most tenacious adherents of the opposition will see the error of their way, acknowledge their wrong and embracing the true faith blend harmoniously with the tried and well founded convictions of Jno and others.—

I should be false to my own feelings and heedless of the demands of justice & gratitude if I should fail to add my grateful acknowledgement of the very many great and

lasting obligations I am under to the Faculty of the University of Maryland severally and as a body. I am and have been constantly the recipient of many and uniform acts of kindness, and the object of the untiring care and patient indulgence which have characterised the learned Lectures of the past two years. For all of this I feel that there is but little return that I can make but if the earnest promise of a persevering attention to professional duties and studies and a firm and faithful adherence to moral rectitude can in any measure

to advance my claim to the honorable degree of Doctor of Medicine or help to remove the fear of having bestowed honors upon an unworthy and unappreciative applicant I here, most earnestly and unreservedly pledge myself to its fulfillment.

Before bidding adieu finally, cannot refrain from again tendering my most heartfelt and grateful thanks to the Faculty, and I am only too proud to assure each member thereof that as long as memory shall hold her accustomed seat in my being I shall recall to mind with warm regard, and will ever

recall with unfeigned pleasure to the time I have spent, the able and lucid lectures I have heard, and the pleasantly profitable intercourse we have had during the past two years.

Baltimore February 1868.

AN

Inaugural Dissertation

ON

Acute Lobar Pneumonitis

Submitted to the Examination

OF THE

Provost, Regents and Faculty

OF

PHYSIC,

OF THE

UNIVERSITY OF MARYLAND,

FOR THE DEGREE OF

DOCTOR OF MEDICINE,

By

Pembroke A. Thomson

Of

Jefferson County, Va.

Session of 1867 & 68

An
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on
Acute Lobar Pneumonitis

Thesis

Acute Lobar Pneumonitis

Having had no personal experience of any description, in any disease, chose this, from the almost endless number treated of in books, as my subject; simply because it is common in almost every country, & therefore requiring the particular attention of every medical student; or to say the least is a topic with which he should be well acquainted, & a disease which he should thoroughly understand, because we must bear in mind, that of late years, there has been a complete revolution in the treatment of this disease, as in all inflammatory affections, formerly bleeding & calomel, was almost the universal way of treating these diseases, now stimulating measures are resorted to, & bleeding is comparatively rare, Calomel also has lost many of its supposed specific virtues; But I am aware, that many medical men of distinction have gone to extremes on this subject, & the

only course left to a Student, is to strike the medium, & leave the settlement of such a question to time & experience.

The derivation of acute Pneumonitis is inflammation seated in the parenchyma of the Lungs, which includes air cells & terminal branches of Bronchial tubes, the lining membrane of these, differs from that of the Bronchial tubes, & are distinguished by their tenuity, & absence of mucus follicles. Lobules are composed of these little cells & Bronchioles, & these lobules, connected by areola tissue compose the lobes, & a collection of these the Lungs.

The limitation of the disease to the pulmonary substance, is owing to the difference in the membrane; which is in accordance with the law of termination of inflammation, that it is propagated more readily where membranes are of the same kind & vice versa.

Anatomical Characters. The first appreciable change, is an abnormal accumulation

of blood, or hyperaemia due to active engorgement, the lung will weigh more than a healthy one, though the air at an early time may be still in the vesicles. this stage is of short duration; exudation & coagulation soon follow. the exuded matter escaping into the air cells, fills & distends them, they cease to contain air, & consequently the lung becomes solidified. it is now pale, softened, more friable, & much increased in weight; a single lobe often increasing from one to two pounds. the weight is due to the solid matter withdrawn from the blood, & a test of its solidification is the sinking in water. the exuded matter is absorbed when removed, & may be effected with great facility, when absorption takes place the lung returns to its normal state, such is a favorable termination, but should this not take place; there will be suppuration, & the lobe will be infiltrated with pus, the color is now gray, & tubolence is very soft; occasionally abscesses form, but

gangrene is very rare. Pleurisy is often developed coincidently with this disease, & varies much in point of severity; but there is seldom much liquid effusion, it is generally circumscribed in character. Pleuropneumonia expresses the existence of the two. There is more or less of Bronchitis; but this is not invariable. it does not tend to the development of Pneumonitis as a primary affection; & the latter only to Bronchitis in the diseased lobe. Pneumonitis in the majority of cases attacks the lower lobe, & the one on the right side, oftener than the left; when it attacks an upper lobe the disease is most severe; as a general rule, it rarely attacks two lobes simultaneously, to whom a new lobe is affected, is the seat of a new invasion. it does not extend from one lobe to the other. A whole lobe is generally diseased, but the inflammation begins at a certain point, & extends from lobule to lobule until the entire lobe is involved.

diffusion of the inflammation may only take a few hours, & then again may occupy several days, can determine the progress of solidification from day to day by physical signs: the inflammation rarely ends with engorgement; solidification must always taking place

Clinical History. There are three stages. the first is that of active congestion, the second solidification. the third embraces one of two conditions, which depends on the favorable ~~or~~ unfavorable condition the disease may be persuing, if favorable it is evident that absorption is going on, & convalescence will take place, & finally ends in Resolution if unfavorable we have the suppurating stage, the duration of these stages vary much, the first only occupying a few hours, second two or three days, average time being forty eight hours. Resolution is still more variable & seldom completed in less than four days & generally eight or ten is required, if the purulent stage death usually takes place

within a few days, but if Patient end in recovery, weeks elapse before the normal condition is restored. Acute Lobar Pneumonitis commences with a chill, & is frequently accompanied by rigors. The invasion is usually abrupt, & generally takes place during the night, about this time we have the pain, which is often severe acute & lancinating, & identical with the pain of Acute Pleuritis & proceeds generally from the conjunction of the two diseases & generally the intensity of the pain is proportional to amount of Pleuritis. The limitation of pain to the nipple is distinctive of Pneumonitis. Cough is sometimes wanting, but is usually present. The cough is often accompanied by expectoration characteristic of the disease, it is at first scanty transparent & viscid, afterwards becoming semitransparent, adherent & of a reddish color, & is the rusty expectoration due to blood. So adherent that it may be inverted without falling out, or losing its position

this expectoration is by no means always present, having its adherency, & semitransparency, without the red tint, & is sometimes of a yellow color. Febrile symptoms, pain in head, occur there is Anorexia. thirst, prostration, & heat of skin &c. pulse full. hard & beats from 90 to 120 By placing the thermometer in Axilla, we note the rise & fall of temperature. when above 104° the disease is very severe, a sudden increase of temperature, denotes the invasion of a new lobe, & the amount of constitutional disturbance will vary in different persons. respirations are increased in frequency. During the stage of solidification, these symptoms undergo some changes. the pain will cease or be diminished, cough & expectoration continue, the former milder, & of easier type, latter affected with more facility becoming more abundant opaque, & less adherent, & is resolving Bronchitis, being furnished chiefly by Bronchial tubes in affected portion of the lungs. febrile movement is diminished in severity, & respirations increased in frequency. Chill rarely accompanies invasion of a second lobe

The invasion of an entire lung dont always give symptoms denoting great severity of disease the fever may not be intense, respiration but little increased. Expectoration may be wanting & system but little disturbed. During the stage of resolution there is progressive improvement until patient recovers Should it terminate in suppurating stage Pulse will be more frequent Expectoration abundant & purulent. Respiration frequent, strength of patient fails & death takes place by Asthenia After solidification the chlorides of urine are reduced it is not peculiar however to this disease but does denote the stage. Delirium sometimes occurs & may be slight, or prominent; when occurring it signifies gravity of the disease, jaundice is sometimes noticed. Abscesses & Gangrene may also occur. Pneumonitis in intemperate persons is apt to develope Delirium tremens. Typhoid Pneumonitis is a low stage & must be distinguished from Typhoid fever with Pneumonitis. Average duration of uncomplicated pneumonitis is twelve days.

Pathological characters. The inflammation affects a mucous tissue, but this differs materially from the membrane lining the Bronchial tubes, both as respects its anatomical composition & function. So that the inflammation is characterized by an exudation which will not produce new tissue, & is not exfoliated or ulcerated, differing from exudation of lymph on other mucous surfaces, it is removed by absorption. The exudation is a product of the blood circulating in the branches of the Pulmonary Artery.

Causes of the Disease. No age is exempt from it particularly susceptible to the disease, occurring frequently at five years of age, & but rarely beyond sixty, attacking males, oftener than females. No particular calling predisposes to the disease, those are oftener attacked, who are the most exposed to vicissitudes of temperature. Frequently an attack is fairly attributable to cold & wet, sleeping on damp ground &c. Intemperance is a cause, but it is not certain whether it be the alc.[illegible] or the exposure to which drunkards generally subject themselves. Certain diseases of the

year seems to favor its developement, occurring much oftner during winter, than summer, in northern States more cases occur in the Spring, in New Orleans more in the winter. the disease is more prevalent on the middle & Southern States than north, more prevalent some years than others, affecting especially the negro population. Disease is fewer in warm climates, & in the large proportion is referable to no obvious causative influence, Dr. Donalson thinks it a miasmatic poison developed from the Soil, it may be produced transmitically

Diagnosis. Should a person be taken with a chill followed by febrile symptoms, & pleuritic Stitch referred to the nipple, together with characteristic rusty expectoration, the diagnosis is easy & determined without the physical signs, but such characteristic symptoms, are by no means invariable; are often hidden, & the disease itself overlooked by those who do not employ physical signs, with aid of these signs the disease can be diagnosed with certainty, & without difficulty. Signs in

first Stage of the Disease, is slight dulness on percussion, & crepitant rale, which when well marked is almost Pathognomonic, & must be careful to distinguish this rale from sub crepitant, its destinctive characters being its fineness, dryness & limitation to inspiration, the subcrepitant on the other hand however fine it may be, is a moist bubbling sound & liable to be heard in expiration as also in inspiration. the two may exist at the same time. the crepitant rale is not uniformly present, a positive diagnosis is impossible. in event of this, you will have to wait until enough tubules are solidified to give the rale, or an appreciable modification of respiratory murmur. bronchophony, & Whispering bronchophony are signs denoting this condition of solidification. manifested at first over a part & then over the whole of affected lobe, spreading with rapidity, or slowness according to the form of disease. Second Stage may be determined by these Signs.. generally they are all present, & it is exceedingly rare for

all to be absent, dulness on percussion amounts almost to flatness, & tending over the space occupied by the solidified lung, boundary line being the interlobular fissure. Crepitant rale may continue more or less diminished in this stage, or disappear upon solidification invasion of second or third lobe is noted by dulness on percussion & usual auscultatory signs viz. Bronchial respiration, Bronchovesicula respiration, heard near the apex of lung. Bronchophony with a loud & whispered voice, solidification of upper lobe is sometimes flat, at others tympanitic, on percussion, & sometimes am amphoric intonation. Resolution & its progress from day to day is noted by modification of signs denoting solidification approaching closer the vesicular murmur. Bronchophony is lost, dulness less & less marked, but continues after exudation has been removed, the subcrepitant rale is frequently heard, sometimes the crepitant rale suppurating stage, Dulness continues, moist Bronchial rales are prominent, marks of solidification

from auscultation. continue, if abscesses be present will have the cavernous respiration.
Prognosis. This will depend upon the extent of lung involved, & the disease with which it may be connected, as an intercurrent affection; its complications, & previous condition of Patient. If it be a primary disease, limited to a lower lobe, uncomplicated & the person of good constitution, its tendency is to recovery. The gravity is not so much in the disease per se, as from coexisting affections. In organic diseases of the heart, it is likely to prove a serious affection. Complications which are apt to render it fatal are Pericarditis, Intermittent fever, & Delirium Tremens. but recovery takes place in a certain proportion, notwithstanding these complications. Coagulation of fibrin in right cavity of heart is frequently fatal, apt to occur when a whole lung is diseased. Gangrene, abscesses, suppurating stage all render the prognosis extremely unfavorable. Unfavorable prognostic symptoms. frequency & feebleness of

pulse, great frequency & labor of respiration, lividity of face, an abundant mucopurulent expectoration, Active Delirium, Typhoid State of Delirium with subsultus tendinum, in the great majority of cases death takes place from asthenia, combined with apnoea, patients generally die from exhaustion, when convalescence takes place it generally progresses until recovery is complete.

Treatment. This will involve each stage of the disease separately, it is exceedingly questionable whether we can arrest this disease in the first stage. Measures considered as abortive for this, are bloodletting, cathartics, & other anti-phlogistic remedies, but such remedies require a great deal of skill & judgement, for should they fail will actually do harm. The object then in this stage will be to relieve the intensity of the inflammation, & place the system in a condition to tolerate the disease. Bloodletting is admissible as a palliative, & to some degree a curative remedy, in view of the pneumo-

of its action, high fever increased action of heart & Plethora will warrant its employment, & vice versa. when fever is not marked, pulse active without power, & patient anemic, such treatment is contra indicated, but we may deplete with saline cathartics, & sedative remedies, after the administration of a saline purgative, if skin continue hot, pulse frequent, Tartar Emetic or some antimonial preparation may be given, but dont carry the dose to distressing nausea. veratrum viride may be given under the same restriction. these remedies would be contra indicated in case of feebleness. use opium during the first stage in doses to relieve pain, blisters would be injudicious. stimulating liniments may be employed, stupes to the chest. but in general terms. a brisk saline cathartic followed by a dose of opium will be generally sufficient for this stage.

Second stage. The indications here will be to promote resolution, palliate the symptoms, & support the powers of the system

Bloodletting in this stage is not admissible, & saline purgatives are uncalled for, it is not an object now to divert the blood from the solidified lung, for exudation has already deprived it of blood. the object then is to absorb this exuded matter, for which purpose Tartar Emetic has been given, but Professor Flint has discarded its use for this purpose, & says he sees no reason to regret having done so. treats Mercury in exactly the same way. Iodine may be employed, because it is not open to the objection of either of the above remedies, on the score that it will do no harm if it does no good. apply the tincture of Iodine to the affected side. oiled muslin is of great advantage. Opium is indicated in pain & restlessness, does not hesitate administer it, and alleviates a great deal of pain, but should mucus be accumulated in the bronchial tubes, its use would be contraindicated, when there is fever, may give Tartar Emetic, & Veratrum Viride. The leading indication is to support the system & should not be

lost sight of, for the great danger in Pneumonitis, is failure of the vital powers, before resolution can take place, & the indication for supporting measures will be urgent in proportion to the danger from Asthenia, but these measures must not be deferred too long, it would be a mistake to wait until life was almost extinct. We would give Tonics, Stimulants, & nourishing diet. Quinia is the best of Tonics. a feeble vibrating & compressible pulse, is an indication for supporting measures. Animal Soups, essences, milk, & farinaceous substances, may generally consult the desires of patient. When this disease is combined with Intermittent fever, Quinia is the true remedy, when with Delirium Tremens, Opium must be given. Gangrene calls for supporting treatment. When convalescence begins, need not be too cautious, as a relapse seldom occurs. Ammonia may be used to prevent the deposition of fibrin, in the heart, there is no danger in this remedy, & it is supposed that some

holds the fibrin of the blood in solution hence its use.

Pembroke A. Thomson.

AN

Inaugural Dissertation

ON

The Use of Alcohol in Illness

Submitted to the Examination

OF THE

Provost, Regents and Faculty

OF

PHYSIC,

OF THE

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FOR THE DEGREE OF

DOCTOR OF MEDICINE,

By

J. Clayton Williams

of

Winchester Virginia

Session of 1867-68

The Use of Alcohol in Phthisis

Of all the diseases to which man is liable, there is none which is of more interest to every medical man than that known as Phthisis Pulmonalis. The terrible fatality of this disease and the number in all classes that fall

it claims, has well entitled
it, to the more common,
but most significant name
Consumption.

Headlam, and to
him it is due. Dr Budd to
the contrary notwithstanding
it is often the only heir
loom that is handed
down from one generation
to another, and by its
ravages whole families
are carried off, and many

once well known in our
midst are blotted out, save
where the monuments of
the dead preserve the
record. For many years
the profession has been
endeavoring to discover
something to stay the tide of
this great disaster, and
much study and thought
has been bestowed upon
it but unfortunately little
success has rewarded the

effort. From time to time remedies have been brought forth and vaunted as specifics, but soon lost their reputation and were laid aside, as the disease continued unchecked on its march of destruction. Although failure has so far attended all efforts to find a specific, yet much has been accomplished by scientific research and

due may hope for still further progress. The means now employed to improve the general condition of consumptives is of great advantage, by placing them on a vantage ground in her struggle with the disease. The consumption and study of all the remedies and rules of hygiene that have proved most beneficial is not my purpose

purpose; but a consideration of that agent which is of a great utility, Alcohol.

Before taking up the therapeutical effects of this agent, I would first notice its most conspicuous physiological actions.

When Alcohol, in any of its forms is taken into the stomach, there is felt a sensation of warmth, extending gradually from thence over

the rest of the body, an increased force is given to the heart's action; the digestive powers are promoted, and all the organic functions exalted. The different compounds have somewhat different actions, but all agree in the essential one of stimulation. Its first effect is upon the mucous membrane of the stomach, but from the ease with which it is absorbed

it is soon taken up and carried by the circulation to all parts of the body, exercising its stimulant power upon the tissues with which it is brought in contact. The special tendency seems to be to the brain and nervous centres shown by the presence of more or less pure alcohol in the fluids of the brain and cord, and by the increase of muscular force. (4) The intoxication

and exhalation that I have mentioned, relies upon the administration of strictly stimulant quantities. When given in larger amounts, we see the exhibition of the narcotic power possessed by this agent. The ideas become confused, self control is lost, talent becomes, as shown want of coordinating power is felt, followed by stupor and sleep, and sometimes by

consumptions. "Fair look
sickness seldom follows that
poisoning. Sick cows after
an indulgence never be fat
longed." These alone, are the
effects, apparent to all. If
blighted upon the system; but
as to the intimate changes
brought about in the bowels.
there is much difference of
opinion amongst the au
thorities of the day. Some
teach that it deposits in

the original change in the tissues and thereby prevents the waste, attendant upon such change: whilst on the other hand it is held that the increased activity of the functions must be accompanied, by a more rapid disintegration and renewal of structure. This difference of opinion can only be definitely settled by exact experiments accurately made.

Another point of controversy is whether or not alcohol is food. Upon it much ingenious reasoning has been set forth, in support of each side of the question; that one who has only the experiments and assertions of others to guide him, is somewhat perplexed. Fortunately, these differences of opinion do not interfere with the practical benefits to be derived from the

use of this legend, and need only serve to impress caution in its use. Those who hold that alcohol is food proper base their opinion upon the following facts. In the first place: oft repeated experiments have shown that laboring men, when furnished with a due amount of alcoholic liquor, can do the same amount of work

with much less food, than when no such drink is allowed. and that this difference is too great, to be accounted for, merely by the improved digestion of the ordinary articles of food. 4th The next fact brought forward, is, that so small is the amount given off unchanged, in proportion to that taken into the stomach, that most

if it must be decomposed in the body, and then converted, by some process as yet unknown, into one or several of the normal constituents of the economy. The increase of adipose tissue, and the greater amount of fat present in the blood, whilst Alcohol is being used, seem to favour this view. But the strongest argument on this side is

furnished, by the remarkable cases on record, of persons living for years, almost exclusively upon some one of the forms of alcohol.

Whatever the theory may be, the fact remains, that either directly or indirectly, alcohol does enable the system to do with little or no ordinary food, for a considerable period, ranging from months to years.

I shall here leave this disputed point, and proceed with the more special subject of this thesis.

In Phthisis the main object aimed at, is the nutrition of the patient and every effort is made to accomplish it. Food is of course the main reliance, but it is often difficult, from the lack of appetite, to get the due amount

the proper secretion is augmented and the muscular walls invigorated.
This stimulating action extends to the intestines, and thus continues to aid in the digestion and absorption of the food. The improvement in the general nutrition of the body, thus brought about, is observed in by the stomach itself which is the better able to perform its

into the stomach. Now
Alcohol is an aid by its
power to arouse that feeling
known as appetite.
But after the food is gotten
into the stomach the weak
digestive powers must be
assisted, and again is
Alcohol of eminent service.
By its action upon the
mucous membrane of the
stomach more blood is
brought to the organ

function when most called on.

This effect of bleeding, is generally admitted, and suffices to recommend its use, in cases requiring improved nutrition without considering fears of difference. Whilst thus useful as an aid to the digestion of all articles of food, it is particularly valuable when given with fatty matters, Cod Liver oil especially.

This substance, now the

check another, with treatment of tuberculosis, is to be respected only, unless given in blood.

Another benefit derived from the right use of this test, and which is hardly secondary to that just mentioned, is the ability it gives the patient to take such doses exercise without excessive fatigue. This it does, by the invigoration of the muscular system and by increasing the general

heat. It is a mistake to suppose, as is often done, that this exaltation is always followed by a corresponding depressing reaction. No such result will follow, unless the effect or rather action of the agent, be carried beyond the stimulant point, to that of narcotism. This not always easy to draw clearly the line of demarkation between these two antagonistic powers.

but it must be closely observed, as not so far on either side. Then has effects of alcohol, as improvement of digestion and invigoration of muscles. There is a reasonable mode of explaining the benefit that experience has found to be derived from its use in Phthisis, and to recommend its continuance. I shall briefly notice some cases reported by Dr. Hall in which alcohol seemed to exert an opposite

influence over the disease.
In sixty two cases of acute
tuberculosis reported by
this author, fourteen had
been treated exclusively
by bleeding irrespective of
hygienic measures. In one of
these cases, that of a young lady,
a pint of whiskey, was taken
daily for two years, with
the result of a complete cure
apparently. In fact worthy
of note, is reported in this

case that it was only after a great improvement in the health of the patient, that any excitement from the whiskey manifested itself. The happy results, obtained by Dr Flint, in the cases such noticed, are certainly strong arguments in support of the idea that Alcohol does exhibit a specific curative influence over Phthisis; but without a much greater mass of evidence

than is yet afforded it would be wrong to trust solely to its use.

The form of alcoholic liquor, to be used in each case must be determined to a great extent by the taste of the patient. The active remedial agent is alcohol which exists in all fermented and ardent spirits, but in different proportion of course.

The quantity to be used is a matter of very great importance, but about which there can be no precise rule.

The different degrees of susceptibility to its influence, manifested in various constitutions, and the remarkable tolerance sometimes induced by its prolonged use, render all laws upon this point very vague and general, although there are some indications

that he will provide the stimulation.
If upon its administration, a
sense of comfort and warmth
be felt, with a feeling of increased
strength, and a desire for exer-
cise, without any undue ex-
citement of the nervous or cir-
culatory systems, it is safe to
conclude that both the quan-
tity and kind of liquor used
is proper for that case.
If the reverse of this occurs, at
tention should be given to the

quantity and kind, and if then, the difficulty still exists it should be at once discontinued as it is more likely to do harm than good.

In regard to the prophylactic power of alcohol there is much difference of opinion. Those who believe that it does have this power, have advanced many theories to explain its modus operandi, but none are entirely satisfactory.

[illegible] the result is then un-
lock by the much doubtful
doubtful great caution in the
use of this legend, for that pur-
pose. The speak danger of
habits of intemperance being
contracted by the continued
use of it should always be
borne in mind. It should
never be taken in excess to con-
viviality nor by those in whom
there is any reason to suspect
that unfortunate craving.

which is so difficult to control.
The fermented liquors should
be used when adjuncts to meat.
the requirements of the case are
less likely to do harm, in this
way. ... that in spite of all
precautions, the physician
not infrequently sees those
die of intemperance, who began
the use of alcohol, as a prophy
lactic against Phthisis Pul
monalis.